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In The Matter Of:

*CBS, Inc., et al. v.
PrimeTime 24 Joint Venture*

P/ 566
(TPO
WORKING)

Richard L. Bibby

Vol. 1, June 10, 1998

PLAINTIFFS'
DESIGNATIONS

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Page 1

Page

(1) Volume I
(2) Pages 1 to 147
(3) Exhibits 1 to 8
(4) UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA
(5) Civil Action
(6) No. 96-3650-CIV-Nesbitt
(7) CBS, INC.; FOX BROADCASTING CO.;
GROUP W/CBS TELEVISION STATIONS PARTNERS;
(8) CBS TELEVISION AFFILIATES ASSOCIATION;
POST-NEWSWEEK STATIONS FLORIDA, INC.;
(9) KPAX COMMUNICATIONS, INC.;
LWWI BROADCASTING, INC.; and
(10) RETLAW ENTERPRISES, INC.,
Plaintiffs,

(11) vs.
(12) PRIMETIME 24 JOINT VENTURE,
(13) Defendant.

(14) DEPOSITION OF RICHARD L. BIBB, a witness
called on behalf of the Plaintiffs CBS, Inc., Fox
(15) Broadcasting Co., and Group W/CBS Television Station
Partners, taken pursuant to the Federal Rules of
(16) Civil Procedure, before Susan M. Manty, Certified
Shorthand Reporter and Notary Public in and for the
(17) Commonwealth of Massachusetts, at the Law Offices of
Foley, Hoag & Eliot LLP, One Post Office Square,
(18) Boston, Massachusetts, on Wednesday, June 10, 1998,
commencing at 10:10 a.m.

(19)
(20)
(21)
(22) (Continued on next page)

(23)
(24)

(1) PRESENT:
(2) Warner, Cutler & Pickering
(by Thomas P. Olson, Esq.)
(3) 2445 M Street, N.W.,
Washington, DC 20037-1420.
(4) for the Plaintiffs CBS, Inc., Fox
Broadcasting Co., and Group W/CBS
(5) Television Stations Partners.
(6) Foley, Hoag & Eliot LLP
(by Stephen B. Deutsch, Esq.)
(7) One Post Office Square,
Boston, MA 02109,
(8) for the Defendant.

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(20)
(21)
(22)
(23)
(24)

(1) INDEX
(2) WITNESS: DIRECT CROSS REDIRECT
(3) Richard L. Bibb
(4) (By Mr. Olson) 4 138
(5) (By Mr. Deutsch) 125

(6) EXHIBITS
(7) EX. NO. PAGE
(8)
(9)
(10)
(11) 1 Document listing PrimeTime 24
subscribers dated 6/9/98 13
(12) 2 Document entitled "Assumptions" 23
(13) 3 Document entitled
"Assumptions (II)" 27
(14)
(15) 4 Expert Report of Richard L. Bibb 29
(16)
(17) 5 Rebuttal Expert Report of
Richard L. Bibb 30
(18) 6 Affidavit of Richard L. Bibb 30
(19) 7 Color copy of Exhibit B to
Rebuttal Expert Report 34
(20)
(21) 8 Web page entitled "RFCAD for
Broadcasting" 38
(22)
(23)
(24)

Page 8

Page 1

[1] approximately 100 PrimeTime 24 subscribers in the
[2] Charlotte, North Carolina, area, correct?
[3] A: I'm not trying to play games with you, but
[4] do I recall these numbers, or do I accept your
[5] statement that he did it?
[6] MR. DEUTSCH: That's an absolutely fair
[7] comment. Just because you have a report doesn't
[8] mean you would recall that he tested it or arranged
[9] for testing at 100 locations.
[10] Q: Will you accept my representation that
[11] Mr. Cohen states in his expert report that he
[12] arranged for certain measurements to be conducted
[13] near the homes of about 100 PrimeTime 24 subscribers
[14] in Charlotte?
[15] A: Yes.
[16] Q: Likewise in Pittsburgh and likewise in
[17] Baltimore?
[18] A: I'll accept that.
[19] MR. DEUTSCH: And when you ask if you
[20] "accept it," I take it you really mean, you're
[21] really asking him to assume that for purposes of
[22] some question you're going to ask him?
[23] MR. OLSON: That's correct.
[24] MR. DEUTSCH: Okay.

[1] Q: Why not?
[2] A: The data did not belong to me. That would
[3] have been about 30 years ago. The data would have
[4] been owned by clients of another consulting firm.
[5] since gone.
[6] Q: Have you visited, in connection with this
[7] work you're doing for PrimeTime 24, any of the
[8] roughly 400 locations that we've just been
[9] describing in Miami, Charlotte, Pittsburgh or
[10] Baltimore?
[11] A: I have not.
[12] Q: Do you know whether anyone other than
[13] people working under Mr. Cohen's direction have
[14] taken any measurements of signal intensity at any of
[15] those roughly 400 locations?
[16] A: I have no such knowledge.
[17] Q: Have you talked with PrimeTime 24 or its
[18] attorneys about the possibility of your conducting
[19] or supervising any tests at any of those 400
[20] locations?
[21] A: I have not.
[22] Q: Have you conducted or supervised the
[23] conducting of any signal intensity tests at the
[24] locations of any PrimeTime 24 subscribers in any

Page 9

Page

[1] Q: Now, with respect to the approximately 100
[2] locations in the Miami area at which Mr. Cohen
[3] states that he arranged for certain measurements to
[4] be conducted, have you conducted any measurements at
[5] those locations?
[6] A: I have not.
[7] Q: Would your answer be the same with regard
[8] to the locations that Mr. Cohen states he arranged
[9] for tests at in Charlotte, Pittsburgh and Baltimore?
[10] A: Pittsburgh and Baltimore I can be pretty
[11] certain that the answer is I have not done
[12] measurements at any of the locations Mr. Cohen had
[13] done measurements. Years ago I did so much work in
[14] Charlotte, using the same sort of techniques, that I
[15] may have.
[16] Q: But by coincidence?
[17] A: By coincidence.
[18] Q: Have you gone back to any data that you
[19] collected in Charlotte to determine whether or not
[20] any of those locations happened to be the locations
[21] of PrimeTime 24 subscribers?
[22] A: I have not.
[23] Q: Would you be able to do that?
[24] A: I would not.

[1] location in the United States?
[2] A: I have not, not to my knowledge.
[3] MR. DEUTSCH: Other than by coincidence in
[4] the manner you discussed before.
[5] THE WITNESS: Other than coincidence.
[6] Q: Do you know if anyone else, other than the
[7] work described by Mr. Culver in his expert report
[8] dated approximately April 15, has gathered any -
[9] strike that. Do you know whether anyone other than
[10] Mr. Culver has conducted signal intensity
[11] measurements at or near the locations of any
[12] PrimeTime 24 subscribers in the United States? And
[13] I should be clear that I'm not asking about
[14] Mr. Cohen's measurements.
[15] A: I have no such knowledge; I don't know.
[16] Q: You mentioned that your home is in
[17] Arlington, Virginia.
[18] A: Correct.
[19] Q: In your professional opinion, could you
[20] receive a signal of a Grade B intensity through use
[21] of conventional outdoor rooftop antenna at your
[22] home?
[23] A: I have a problem with your question.
[24] Q: What's your problem?

Page 12

Page 14

[1] A: We are in an area of multiple services is
[2] Problem No. 1; you said "a," so much as one. My
[3] second problem with your question is, are the
[4] signals that I might receive usable, viewable?
[5] Q: Let me rephrase my question to solve the
[6] first problem, which I understand. At your home in
[7] Arlington, Virginia, in your professional opinion,
[8] is it possible to receive a signal of Grade B
[9] intensity, by which I mean 47 dBu, 56 dBu, or 64 dBu
[10] as the case may be - strike that.

[11] You're aware that there's a CBS TV station,
[12] that is, CBS affiliate, in Washington, D.C.,
[13] correct?

[14] A: Correct.

[15] Q: That's Channel 9, right?

[16] A: Correct.

[17] Q: Call letters WUSA. And the level specified
[18] by the FCC as Grade B for Channel 9 is 56 dBu,
[19] correct?

[20] A: I believe so.

[21] Q: Using a conventional outdoor rooftop
[22] receiving antenna, is it possible in your
[23] professional opinion to receive a signal of at least
[24] 56 dBu from Channel 9 at your home?

Page 13

[1] A: Yes.

[2] Q: What about at your office?

[3] A: Since I'm now semiretired, my office is my
[4] home.

[5] Q: So your answer obviously is the same.

[6] A: Yes.

[7] MR. OLSON: Let me ask the court reporter
[8] to mark a three-page document as Biby Exhibit 1.

[9] (Document marked as Biby
[10] Exhibit 1 for identification)

[11] Q: Here's the original for you, sir. Mr.
[12] Biby, if you'd just let me know when you've had a
[13] moment to look at Biby Exhibit 1.

[14] A: (Reviewing document) Yes, I've had a moment
[15] to look at it.

[16] Q: Let me represent to you that Biby Exhibit 1
[17] reflects the names and addresses of certain
[18] subscribers to PrimeTime 24. Let me direct your
[19] attention, if I may, to the third page of Biby
[20] Exhibit 1. Do you see that the second entry on that
[21] page contains information that appears to be about
[22] someone named R. Kurtz who lives on Glebe Road in
[23] Arlington?

[24] A: I do.

[1] Q: Are you familiar with that location?

[2] MR. DEUTSCH: I object to the vagueness of
[3] the question. Do you mean, does he know where Glebe
[4] Road is or is he familiar with 1005 Glebe, Suite
[5] 800?

[6] Q: Do you have a reasonably good idea of where
[7] 1005 Glebe Road is?

[8] A: Reasonably.

[9] Q: In your professional opinion, is it
[10] possible, using a conventional outdoor rooftop
[11] antenna, to receive a signal of at least 56 dBu from
[12] Channel 9 in Washington?

[13] A: I thought we were in Arlington.

[14] Q: I'm sorry, the station is located in
[15] Washington. What I mean is at 1005 North Glebe
[16] Road, is it possible to receive a signal of at least
[17] 56 dBu from Channel 9 through use of a conventional
[18] outdoor rooftop antenna?

[19] A: I don't think I can answer that -

[20] Q: Tell me why.

[21] A: - other than to say I don't know.

[22] Q: Tell me why you can't answer that.

[23] A: We're drawing from memory here, but I
[24] believe that is in an area of rather intense

Page 15

[1] development, and it's quite conceivable that in
[2] shadows of buildings in that area there might be a
[3] reception problem.

[4] Q: What would you need to do to determine
[5] whether or not Mr. Kurtz on North Glebe Road in
[6] Arlington is capable of receiving a signal of Grade
[7] B intensity from Channel 9 through use of a
[8] conventional outdoor rooftop antenna?

[9] A: There is so much speculation in your
[10] question. I don't think it's answerable. Can he
[11] have an outdoor antenna? Now, I really will be
[12] extremely distressed if we second-guess. You've
[13] presented me with an address that, yes, it's
[14] somewhere in my neighborhood, and I think I knew the
[15] circumstances in that area, but I only think I do,
[16] and I believe it's those high-rise buildings around
[17] Ballston. And if so, where is the man's apartment?
[18] I don't know. Can he even have an outdoor antenna?
[19] I don't know.

[20] If he can't have an outdoor antenna, then
[21] it's totally specious to ask if he could receive a
[22] Grade B signal from Channel 9 in Washington on an
[23] antenna that he can't have. So I can't answer your
[24] question.

Page 16

(1) Q: Why don't you assume away the issue of
(2) whether he is permitted to have a rooftop antenna,
(3) and answer the question that way.
(4) MR. DEUTSCH: I think the witness has
(5) already answered the question by referring to other
(6) factors.
(7) Q: Well, is there - in general, with regard
(8) to a particular household, how would you go about
(9) determining whether or not that household is capable
(10) of receiving a signal of Grade B intensity from a
(11) particular station using a conventional outdoor
(12) rooftop antenna?
(13) A: Would you expand your question a bit.
(14) You're using some terms that I have trouble with.
(15) Q: Tell me what the terms are that you're
(16) having trouble with.
(17) A: A "Grade B signal," you're using a phrase
(18) very similar to that.
(19) Q: Let me ask it a different way. Let's focus
(20) for the moment on channels that are in the same
(21) range as Channel 9, that is, high VHF channels, all
(22) right?
(23) A: Yes.
(24) Q: And my question for you is, with regard to

(1) other values were come to, it must be comparable in
(2) quality of picture as received - pardon me, as
(3) presented to those people; otherwise it's not being
(4) "received" by my definition.
(5) So defining it, my answer is, I have my
(6) doubts. I don't know, but I would question it.
(7) Q: Let me ask you a different question.
(8) A: Okay.
(9) Q: I don't want to get hung up on the word
(10) "receive." Tell me what you would need to do with
(11) regard to any particular location to determine
(12) whether a signal of at least 56 dBu is present in
(13) the air above the rooftop of a particular PrimeTime
(14) 24 subscriber, and I'm referring to high VHF
(15) stations.
(16) A: What happened to the conventional receiving
(17) antenna, because there's another term that troubles
(18) me. What is a "conventional receiving antenna"?
(19) I'm not trying to quibble with you.
(20) Q: Tell me what you would do to determine the
(21) signal intensity in the air at a particular
(22) location.
(23) A: At a particular time?
(24) Q: At a particular time, yes, sir.

Page 17

(1) any location, what would you need to do to determine
(2) whether at that location it is possible, using a
(3) conventional outdoor rooftop antenna, to receive a
(4) signal of at least 56 dBu from a particular high VHF
(5) station?
(6) A: I'm not quibbling words with you, but
(7) you're using terms that appear to have a great deal
(8) of meaning that trouble me. "Receive"; do you
(9) receive a signal if it's not usable?
(10) Q: I'm asking whether or not in the air above
(11) the rooftop at these homes there is present a signal
(12) of at least 56 dBu from a particular high VHF
(13) station.
(14) MR. DEUTSCH: I think the witness has, with
(15) regard to that, raised the question of "If it's not
(16) usable, are you receiving it?"
(17) Q: I'm asking you whether -
(18) A: Perhaps this would cut to the chase. If I
(19) apply my own definition to your term "receive," and
(20) I will be very candid with you what that definition
(21) will be, it must be usable, it must be comparable
(22) to - in quality of picture, it must be comparable
(23) to that which was the basis for judgment before all
(24) of those boards on which basis the 47, 56 and the

(1) A: At a particular location, regardless of
(2) where it was?
(3) Q: Yes.
(4) A: One would place a receiving antenna of
(5) known characteristics, and we can come back in a
(6) minute as to what I mean by "known characteristics,"
(7) at that location in space, couple it to a receiving,
(8) a calibrated receiving instrument, using a
(9) transmission line of known or measurable
(10) characteristics, ensure that the device is properly
(11) calibrated, and take the reading.
(12) Q: Have you ever done that?
(13) A: Thousand of times.
(14) Q: When did you most recently do that?
(15) A: Gee, March, thousands of measurements in
(16) March.
(17) Q: Are you familiar with an FCC regulation
(18) that's located at 47 C.F.R., Section 47.686?
(19) A: (No response)
(20) Q: Did you hear the question?
(21) A: I did. I would suggest if you want to
(22) make, you know, in making such lengthy recitations,
(23) numerical recitations, it would be helpful if you
(24) would simply show me the portion of the code.

Page 20

[1] Q: You're not familiar off the top of your
[2] head with Section 686 of the Commission regulations?

[3] A: I'm familiar with the 73.600 portions, the
[4] television broadcast portions.

[5] Q: Are you familiar with FCC regulations that
[6] describe use of 100-foot runs in measuring signal
[7] intensity?

[8] A: In determination of service areas, yes.

[9] Q: Have you ever done 100-foot runs in
[10] measuring signal intensity?

[11] A: Hundreds.

[12] Q: What proportion of the signal intensity
[13] measurements that you've conducted over the years
[14] have been done using 100-foot runs?

[15] MR. DEUTSCH: When you ask him "what
[16] proportion," do you want encompassed within his
[17] answer all measurements regardless of purpose or
[18] measurements just for the purpose that the FCC rule,
[19] as indicated in his answer, was for?

[20] Q: For the moment I'd like to know for any
[21] purpose.

[22] A: You'll have to restate your question,
[23] please.

[24] Q: Roughly how many signal intensity

Page 21

[1] measurements did you say you've collected over the
[2] years?

[3] A: Hundreds of thousands.

[4] Q: Hundreds of thousands?

[5] A: Yes.

[6] Q: When you say "hundreds of thousands," do
[7] you mean at hundreds of thousands of locations, that
[8] is, locations, as opposed to one inch as opposed to
[9] the next inch along a 100-foot run?

[10] A: Let me define a term in order to answer
[11] your question.

[12] It is the usual conventional practice to
[13] take mobile runs, regardless of the purpose for
[14] which the measurements are being taken. One
[15] conventionally scans a distance of 10 to 20
[16] wavelengths during such a mobile run. That
[17] corresponds roughly to the 100 feet at television
[18] frequencies. One collects - now in this digital
[19] world, one collects discrete samples, one to 200
[20] such discrete samples over the 10 to 20 wavelength
[21] run. Now, that's my definition of a data set
[22] consisting of this 1 to 200 individual readings.

[23] I have collected literally tens of
[24] thousands of mobile runs, including measurements

Page 22

[1] taken with antiquated equipment at 30 feet, 100-foot
[2] mobile runs, moving pin recorders, the good
[3] old-fashioned way.

[4] Q: You go back to the days when

[5] A: I've had a lot of ink on my fingers.

[6] Q: You go back to the days before things were
[7] done in the electronic way that I take it that they
[8] now are mostly done.

[9] A: Absolutely.

[10] Q: At what height do you typically do your
[11] mobile runs?

[12] A: You do your mobile run at a height
[13] pertinent to the purpose for which you're taking
[14] them, and that's not intended to be an evasive
[15] answer. In those cases where I was doing it for FM
[16] or television broadcast reasons, in general, at 30
[17] feet. Where safety or other reasons preclude your
[18] taking them, in keeping with other industry
[19] practice, I've taken FM and TV runs at about nine
[20] feet. The usual height for taking readings intended
[21] for mobile radio, that is, police radio, public
[22] safety, cellular, is six feet.

[23] Q: I want to ask you to assume for purposes of
[24] the next series of questions that the phrase "Grade

Page 23

[1] B intensity" in Section 119 of the Copyright Act
[2] refers to an objective measurement of signal
[3] strength in dBu's without regard to your concerns
[4] about the usability of the resulting picture.

[5] A: I understand your interruption.

[6] Q: I want to provide you with certain factual
[7] assumptions, and then I want to ask what
[8] conclusions, if any, you can draw from those
[9] assumptions.

[10] MR. OLSON: I'd like to ask the court
[11] reporter to mark a one-page document as Biby
[12] Exhibit 2.

[13] (Document marked as Biby
[14] Exhibit 2 for identification)

[15] MR. DEUTSCH: And you're asking without
[16] regard to the reality of any of these assumptions -
[17] I want to understand - and without regard to
[18] whether the witness believes that any of these are
[19] accurate or realistic, you want the witness to
[20] assume these things are true?

[21] MR. OLSON: That's correct.

[22] Q: If you'd just take a moment, Mr. Biby, to
[23] review Biby Exhibit 2.

[24] A: (Reviewing document) All right, I've

Page 24

[1] scanned the 11 assumptions.

[2] Q: And you're accepting those assumptions as
[3] true for purposes of the questions I'm about to ask,
[4] correct?

[5] MR. DEUTSCH: I think a fair way is that
[6] he's accepting those assumptions for purposes of the
[7] questions, as the basis of the questions, whether
[8] they are true or not.

[9] Q: I want you to treat them as though they
[10] were true for purposes of my questions, okay?

[11] A: I understand the instruction.

[12] Q: Do the statements contained in Biby Exhibit
[13] 2 enable you to form a professional opinion about
[14] whether or not the viewer described in Biby
[15] Exhibit 2 is capable of receiving a signal of at
[16] least 56 dBu in the air above his or her rooftop
[17] from those local ABC, CBS, Fox or NBC stations that
[18] are in the high VHF band?

[19] MR. DEUTSCH: Could I have that question
[20] read back.

[21] (Question read)

[22] MR. DEUTSCH: I'm going to object.

[23] MR. OLSON: Your objection is noted.

[24] MR. DEUTSCH: Well, that's fine.

[1] A: That is correct.

[2] Q: Based on the facts set forth in - strike
[3] that. Based on the statements contained in Biby
[4] Exhibit 2, are you able to form a professional
[5] opinion about the signal intensity in the air above
[6] the rooftop of this viewer from the viewer's local
[7] CBS station?

[8] A: Absolutely -

[9] MR. DEUTSCH: Is it your contention that it
[10] is a requirement of the statute that an engineer
[11] form a professional opinion as the basis for
[12] service?

[13] MR. OLSON: I just asked a question.

[14] A: I'm willing to give an answer. I don't
[15] know. I don't know what the signal strength above
[16] rooftop level might be.

[17] Q: What is it that you're lacking that
[18] prevents you from knowing?

[19] A: There's absolutely nothing of scientific -
[20] there's nothing there of engineering or scientific
[21] substance, nothing.

[22] Q: None of the assumptions set forth in Biby
[23] Exhibit 2 have scientific substance with respect to
[24] the signal intensity in the air above the viewer's

Page 25

[1] MR. OLSON: I don't need your details to
[2] clarify the question.

[3] MR. DEUTSCH: After what you did at your
[4] expert's deposition the other day, you forfeited any
[5] right to object to anything that I say, because I
[6] never did anything that approached what you did with
[7] your expert, and you know that.

[8] MR. OLSON: I do not want to listen to this
[9] speech, and I do not want to listen to a speech that
[10] you are about to give to coach your witness.

[11] MR. DEUTSCH: I'm not going to do anything
[12] that approached what you did with Mr. Velturo.

[13] MR. OLSON: Mr. Deutsch, I'm not going to
[14] fill the record with diatribe about your coaching of
[15] Mr. Culver the other day, but I'd like to hear Mr.
[16] Bibb's answer, and your objection is noted for the
[17] record.

[18] A: Is there a question?

[19] Q: Yes. Do you recall the question?

[20] A: I think I recall the impact of it.

[21] Q: Let me start again. Biby Exhibit 2 sets
[22] forth certain statements that I've asked you to
[23] assume to be true for purposes of these questions,
[24] correct?

[1] household; is that correct?

[2] A: Say it again, please.

[3] MR. OLSON: Could you read that back,
[4] please.

[5] (Question read)

[6] A: There is absolutely nothing that I have
[7] been able to spot here that gives me any clue as to
[8] what the signal strength in dBuV might be at the
[9] subscriber's location, nothing.

[10] Q: And you've just gone through each of the 11
[11] statements contained in Biby Exhibit 2 to check that
[12] out, correct?

[13] A: I have.

[14] MR. OLSON: Let me hand you a document that
[15] I'd ask the court reporter to mark, please, as Biby
[16] Exhibit 3.

[17] (Document marked as Biby
[18] Exhibit 3 for identification)

[19] Q: Mr. Bibb, I wonder if you'd take a moment
[20] to review Biby Exhibit 3. I will represent to you
[21] that it is identical to Biby Exhibit 2, except for
[22] Paragraph No. 11, if that will save you some time.

[23] A: (Reviewing document) Okay. I accept your
[24] representation that Items 1 through 10 are identical

Page 28

Page 30

(1) to those in Biby Exhibit 2, that the only difference
(2) is in Item 11. I have read Item 11.

(3) Q: Okay. Now, assuming the truth of the
(4) statements contained in Biby Exhibit 3, are you able
(5) to form a professional opinion about whether the
(6) viewer described in Biby Exhibit 3 has a signal of
(7) at least a Grade B intensity in the air above his or
(8) her rooftop from a local CBS station?

(9) A: Reiterating the fact that I'm agreeing to
(10) respond based on assumptions, statements not made by
(11) me, the answer is no, I can't tell whether there
(12) would be a Grade B signal at rooftop level above
(13) this subscriber's home. I have no information on
(14) which to base that.

(15) Q: Do you have an opinion about whether it's
(16) more likely than not to be present?

(17) A: No.

(18) MR. DEUTSCH: Are you asking...

(19) Q: Let me vary the assumptions set forth in
(20) Biby Exhibit 3 in one respect. In Paragraph No. 11,
(21) instead of the viewer stating that he or she has a
(22) rooftop antenna, the viewer checks a box indicating
(23) that he or she does not have a rooftop antenna but
(24) that a neighbor does and that the viewer's statement

(1) (Document marked as Biby

(2) Exhibit 5 for identification)

(3) Q: I wonder if you would again take a look at
(4) Biby Exhibit 5 and confirm for me that this is a
(5) copy of the rebuttal report that you prepared in
(6) this matter.

(7) A: There's an addendum, a note, that was
(8) prepared by someone other than myself.

(9) Q: Did you approve the inclusion of that
(10) addendum in your rebuttal expert report?

(11) A: We discussed that a notation of that
(12) disparity was necessary.

(13) MR. OLSON: One more document to be marked
(14) at this time. This is a document, the first page of
(15) which is captioned "Affidavit of Richard L. Biby."

(16) (Document marked as Biby

(17) Exhibit 6 for identification)

(18) Q: Here's the original of Biby 6. Again, just
(19) to complete our housekeeping, Mr. Biby, I'd be
(20) grateful if you could confirm for me that Exhibit 6
(21) is a copy of the affidavit that you signed on May
(22) 27, 1998.

(23) A: I accept that it is.

(24) MR. DEUTSCH: Of course with the

Page 29

Page 31

(1) is based on the neighbor's experience. Does that
(2) change your answers with regard to Biby Exhibit 3?

(3) A: I believe my exact answer to Biby Exhibit 2
(4) and 3 was "I don't know," the substance of my
(5) answer. I repeat that answer for No. 3, I don't
(6) know.

(7) Q: And with the slightly changed assumption I
(8) just described, namely a neighbor's antenna as
(9) opposed to the homeowner's own antenna, does that
(10) change your answer?

(11) A: It does not.

(12) MR. OLSON: May I ask if the court reporter
(13) would label as Biby Exhibit 4 a document that's
(14) captioned "Expert Report of Richard L. Biby."

(15) (Document marked as Biby
(16) Exhibit 4 for identification)

(17) Q: Mr. Biby, I'd ask if you'd take a moment to
(18) look at Biby Exhibit 4 and confirm that this is in
(19) fact a copy of your expert report dated April 15,
(20) 1998.

(21) A: I accept that it is.

(22) MR. OLSON: Let me ask the court reporter
(23) to mark as the next exhibit in sequence a document
(24) captioned "Rebuttal Expert Report of Richard L. Biby."

(1) understanding that the exhibits to the affidavit,
(2) which are the reports, aren't literally attached to
(3) the exhibit.

(4) MR. OLSON: Correct. The exhibits to the
(5) affidavit are the documents that we've already
(6) marked as Biby 4 and 5, correct?

(7) MR. DEUTSCH: That's right.

(8) Q: Let me ask, Mr. Biby, if you'd take a look
(9) at the final page of Biby Exhibit 5 please.

(10) MR. DEUTSCH: By the "final page," do you
(11) mean the text, or do you mean the map?

(12) MR. OLSON: The very final page, the map
(13) that looks like a whirlpool.

(14) Q: Did you personally create this map?

(15) A: I did not personally create that map.

(16) Q: Do you know who did?

(17) A: Yes, Mr. Roger Skinner created that map.

(18) Q: Is he someone who works in your office?

(19) A: He works for my son, who is now running
(20) what was my office.

(21) Q: I see. On this map, is north to the left,
(22) as one looks at it in the way one reads a normal
(23) document?

(24) MR. DEUTSCH: You want to ask him if north

Page 32

Page 3

[1] is where the three little white circles that look
[2] like hole punches are?

[3] MR. OLSON: Sure.

[4] A: I'm sorry, but your phrasing offends me; it
[5] offends me. You refer to the normal way of
[6] depicting north as being to the left.

[7] Q: No, I didn't mean to say that. I meant the
[8] normal way of reading a document.

[9] MR. DEUTSCH: What he meant to tell you is
[10] that if you hold the document so that the piece of
[11] paper runs the long way, up and down, portrait, as
[12] opposed to landscape orientation, as they describe
[13] it in the computer, that is, if you hold the
[14] document the way you hold pieces of paper.

[15] THE WITNESS: Oh, that's fine.

[16] MR. DEUTSCH: Another way to put it is, do
[17] you have to turn the paper to landscape orientation
[18] in order to get north on the top?

[19] A: You put the three-hole punches on the top.

[20] Q: That was what I was trying to determine.

[21] A: Yes.

[22] Q: So, for example, can we see the City of
[23] Baltimore to the northeast of the dark, splotchy,
[24] spiral area?

[1] color copy of this original color map as Bibb
[2] Exhibit 7 as soon as a color copy can be made.

[3] MR. DEUTSCH: And that may well be after
[4] the transcript is closed, but if you can somehow
[5] figure out a way to give us a sticker, we'll do
[6] that.

[7] MR. OLSON: I would think we could have
[8] color copies made within a day or two, big city like
[9] this.

[10] MR. DEUTSCH: That I would agree.

[11] (Color map designated as
[12] Bibb Exhibit 7 for identification)

[13] Q: Was Bibb Exhibit 7 the propagation map
[14] created with a program called RFCAD?

[15] A: It's my understanding it was, but the
[16] person who can directly answer that question is
[17] Roger Skinner.

[18] Q: Did you give Mr. Skinner any direction
[19] about how this propagation map should be created?

[20] MR. DEUTSCH: You mean the map itself?

[21] A: You mean the production?

[22] Q: What parameters should be employed in
[23] creating the propagation map that's reflected in
[24] Bibb Exhibit 7.

Page 33

Page 4

[1] A: Again, not quibbling with you, but on the
[2] exhibit before me, I know that blob is Baltimore, so
[3] without qualification, yes, Baltimore is on the
[4] upper right-hand side of the exhibit.

[5] MR. OLSON: Let me ask whether either of
[6] you have a better copy of this document that we
[7] might be able to use today.

[8] MR. DEUTSCH: We have a color copy. It's
[9] not an extra, and let me fetch that. I don't want
[10] to mark it as an exhibit.

[11] MR. OLSON: That's fine. Maybe we can take
[12] a two-minute break.

[13] (Brief recess taken)

[14] BY MR. OLSON:

[15] Q: While we were off the record, Mr. Deutsch
[16] suggested a helpful procedure that I would plan to
[17] follow. The copy that I have of Mr. Bibb's rebuttal
[18] report contains a black and white copy of a color
[19] map. Mr. Deutsch has indicated that he has just a
[20] single original of the color map at this time.
[21] Because the color map is much easier to look at than
[22] the black and white copies, we'll be using the
[23] original color map, and we will agree to mark that
[24] as Bibb Exhibit 7; that is, we will agree to mark a

[1] A: Yes.

[2] Q: And did you give him direction about what
[3] computer program to use?

[4] A: No, I did not.

[5] Q: Would there be any choices about what
[6] computer program to use, or would it be obvious what
[7] computer program to use?

[8] MR. DEUTSCH: You're talking about for
[9] generating the red - you're talking about for
[10] generating the geographical map of Maryland or the
[11] red areas that indicate certain information about
[12] propagation?

[13] Q: I'm referring to the propagation
[14] information.

[15] A: The propagation information was per my
[16] instructions.

[17] Q: That's what I wanted to find out. Was the
[18] propagation information that's reflected on Bibb 7
[19] created using the RFCAD program?

[20] A: I can only give you an "I believe" answer.
[21] I believe Roger used the RFCAD program.

[22] Q: What other programs might he have used?

[23] A: I have to use the Bibb vernacular here,
[24] Bibb-C, and I think it might be helpful if I

Page 36

Page 35

[1] distinguish between the two implementations of what
[2] really is the same functionality.

[3] Q: Do I correctly understand that one can use
[4] the RFCAD program using either a Longley-Rice or
[5] Biby-C propagation method?

[6] A: Let's try to avoid some confusion of terms
[7] here. The Biby-C to which I just referred is - I'm
[8] going to call it a big machine environment sort of
[9] program that I wrote starting in the '80s. It uses
[10] Unix and all that good stuff.

[11] Richard P. Biby's programmers took my work,
[12] converted it from the FORTRAN language to "C" and
[13] implemented it on PCs. That is a commercial product
[14] known as RFCAD.

[15] Also be aware that as is typical of
[16] computer products, RFCAD has had a number of
[17] revisions, modifications. Now, there is the
[18] capability of generating the predictions, which to
[19] the best of our knowledge and ability are the same,
[20] realizing there may be very minor differences
[21] depending on the machine on which these programs are
[22] run; but both Biby-C and RFCAD, given the same
[23] instructions, the same input parameters, create
[24] propagation predictions, which to the best of our

[1] Q: Sure.

[2] MR. OLSON: Let me ask if the court
[3] reporter would mark as the next exhibit in sequence
[4] a one-page document captioned "RFCAD for
[5] Broadcasting."

[6] MR. DEUTSCH: I think we're marking this as
[7] Exhibit 8.

[8] (Document marked as Biby
[9] Exhibit 8 for identification)

[10] A: (Reviewing document) I've read the copy.

[11] Q: Have you ever seen the web page that is
[12] reproduced as Biby Exhibit 8 before?

[13] A: Have I seen this exhibit from the web page,
[14] no.

[15] Q: Have you seen this content before?

[16] A: To focus on it, no.

[17] Q: Let me ask you whether or not two sentences
[18] on Biby Exhibit 8 are correct, to the best of your
[19] knowledge. "RFCAD employs two basic propagation
[20] models in order to allow users to calculate and
[21] predict depicted coverage from an existing or
[22] proposed tower location. Users can choose either
[23] the Longley-Rice or the Biby-C propagation models in
[24] order to make their calculations. The Biby-C

Page 37

Page 38

[1] knowledge are identical. Now, that's one layer of
[2] this exhibit.

[3] The other layer is the map. Biby-C does
[4] not have electronic maps available to it, so in
[5] order to generate a comparable map, the prediction
[6] is plotted on Mylar and is pasted over a standard
[7] map. I believe RFCAD can do it either way.

[8] Therefore, my response to you as to exactly
[9] how it was done - that's what Roger Skinner does
[10] for a living. Roger has worked for the shop for
[11] years. He simply produced an exhibit based on my
[12] instructions.

[13] Q: Am I correct that the RFCAD program has
[14] among its options doing propagation predictions
[15] using a traditional Longley-Rice model on
[16] the one hand and using your own Biby-C model
[17] on the other?

[18] A: Again, simply trying to keep the record
[19] clear, Biby-C and RFCAD are implementations of a
[20] computerized propagation prediction capability.
[21] Both have the option of doing a basic bare-bones
[22] Longley-Rice or modifying the predictions done by
[23] the basic Longley-Rice with the extensions that I
[24] did. Is that clear?

[1] utilizes a land use and land cover database to take
[2] into account the vegetation and man-made clutter
[3] when making its calculations."

[4] Are those statements accurate, to the best
[5] of your knowledge?

[6] A: You're asking me to do a very fine
[7] linguistics judgment on words that someone else put
[8] down. This is copy. This is advertising copy.

[9] Q: Is there something in there that you're not
[10] certain is accurate, some particular phrase?

[11] MR. DEUTSCH: In the three sentences you
[12] quoted?

[13] MR. OLSON: In the three sentences I just
[14] read into the record.

[15] A: No. My problem is I have been asked a
[16] question asking for a very finely honed linguistic
[17] opinion. I am not a linguist and I did not write
[18] this, the copy, so I'm having some problem
[19] responding to your -

[20] Q: Let me just see if I can ask it another
[21] way. Your son has created this program RFCAD,
[22] correct?

[23] A: My son has caused to be implemented a
[24] program called RFCAD or a computer implementation.

Page 40

Page 40

[1] Q: And RFCAD enables one to predict the
[2] propagation of radio frequencies, correct?

[3] A: Radio waves.

[4] Q: And for broadcasting, RFCAD gives one a
[5] choice between either using a traditional
[6] Longley-Rice propagation method or the propagation
[7] model that you have developed that takes into
[8] account morphology, correct?

[9] A: What I did was extend Longley-Rice. The
[10] basic propagation computations in both Biby-C and in
[11] RFCAD are Longley-Rice. Now, outboard post facto,
[12] after Longley-Rice has done its computation based on
[13] morphology, I created a computational algorithm,
[14] which makes changes to the value presented by
[15] Longley-Rice in keeping with two sources, my own
[16] extensive analysis of signal strength data collected
[17] by myself and by my son, and secondarily a fairly
[18] extensive literature on the subject. Did I answer
[19] your question?

[20] Q: Not quite.

[21] A: I extended Longley-Rice, but the basic
[22] computation in both Biby-C and RFCAD is
[23] Longley-Rice.

[24] Now, here is the linguistics problem. Some

[1] thought was illustrative, and there was some
[2] confusion. The confusion was whether to do it at 20
[3] feet or 30 feet, as I recall. So the answer to your
[4] question is yes.

[5] Q: Other than maps - strike that. The maps
[6] at the back of your rebuttal report are propagation
[7] maps for Channel 5 in Washington, D.C., correct?

[8] A: Yes.

[9] Q: Other than propagation maps of Channel 5 in
[10] Washington, D.C., have you created any other
[11] propagation maps for TV stations in connection with
[12] your work for PrimeTime 24 or its lawyers?

[13] A: I have to make a fine distinction here.
[14] I'm just going to cut through a discussion of your
[15] exact words. It is the normal or usual
[16] day-in-and-day-out operating mode - you realize
[17] Roger Skinner is the guy who gets things done -
[18] very frequently Roger will track me down and say,
[19] "Hey, I'm supposed to do a map of this and so; am I
[20] using the right parameters?" And of course I
[21] respond to the best of my ability. So in that
[22] context, I may or may not have had some input into
[23] maps; I simply don't know.

[24] I'm being very careful to give you a full

Page 41

Page 41

[1] copywriter unknown to me, meaning I have no idea who
[2] wrote this, "employs two basic propagation models."
[3] Now we're discussing whether there are really two
[4] models, or one is an extension with the other;
[5] that's my problem here.

[6] Q: I understand that distinction. I guess in
[7] my lay terms I would say that your model is sort of
[8] Longley-Rice Plus?

[9] A: "Longley-Rice Plus" is a good way of saying
[10] it.

[11] Q: My question is simply, the RFCAD program
[12] enables one to choose either Longley-Rice or
[13] Longley-Rice Plus?

[14] A: Sure.

[15] Q: Have you arranged for the creation of any
[16] other propagation maps in connection with your work
[17] for PrimeTime 24 or its attorneys?

[18] MR. DEUTSCH: You mean other than the ones
[19] referred to in his report?

[20] Q: Other than the two that are referred to in
[21] your rebuttal report.

[22] A: Well, the answer to that is yes. There is
[23] one that was done at a height, a version of this
[24] done at a height other than what Steve Deutsch

[1] answer here. Seeing maps, examining maps, other
[2] stations having to do with PrimeTime 24, the answer
[3] is no, I have not.

[4] Q: Let me ask a different way. For purposes
[5] of determining whether or not PrimeTime 24 limits
[6] its service to households that cannot receive a
[7] signal of Grade B intensity, have you created
[8] propagation maps for any stations other than Channel
[9] 5 in Washington?

[10] A: Understanding my caveat that I may have had
[11] influence on them without knowing it, the answer is
[12] no, I have not.

[13] Q: Other than the maps of Channel 5 in
[14] Washington and the maps submitted by Jules Cohen,
[15] have you reviewed, in connection with your work for
[16] PrimeTime 24 or its attorneys, any propagation maps
[17] of CBS or Fox TV stations?

[18] A: In conjunction with PrimeTime 24?

[19] Q: Correct.

[20] A: I have not.

[21] Q: I direct your attention to the color map
[22] that we're going to mark a copy of as Exhibit 7.
[23] Can you tell how much of the District of Columbia
[24] itself is covered by the red area showing predicted

Page 44

[1] signal propagation?
[2] A: Looking at the map, no, I really can't.
[3] Q: Can you tell anything from this map about
[4] what parts of the Washington area are within the
[5] area shown as having predicted propagation in
[6] Biby 7?
[7] A: Again?
[8] MR. OLSON: Can you read that back.
[9] (Question read)
[10] A: I can't extract a meaning from that
[11] question.
[12] Q: May I come over so we can both see the
[13] document.
[14] A: Sure. I also suggest that we find
[15] something to point with that won't mark the map.
[16] Q: Can you see, Mr. Bibby, the Potomac River on
[17] this map?
[18] A: I believe we can see the Potomac, yes.
[19] Q: Does that enable you to form a view about
[20] whether northwest Washington is shown on this map as
[21] receiving predicted propagation?
[22] A: Well, I can get extremely specific in
[23] answering your question. There's this area
[24] predicted to have bad reception - you see where I

Page 45

[1] mean? I believe that's over in Arlington.
[2] Q: And -
[3] A: That's where I live.
[4] Q: My question was about northwest
[5] Washington.
[6] A: I'm not trying to be evasive.
[7] MR. DEUTSCH: From a map of this scale, can
[8] you tell?
[9] A: I really can't tell. This I know because I
[10] saw the original that this was shot from.
[11] Q: There's a tiny white block in the center of
[12] the map. What's the significance of that white?
[13] A: It's a little computer-generated label
[14] saying, I believe - what is it, WTTG - what is
[15] Channel 5? Whatever it is, WTTG, and then there's,
[16] even though it's very hard to see, I believe there's
[17] a little black dot showing where the station is
[18] located. And I believe that - by the way, for
[19] point of reference - is quite near the District
[20] line.
[21] Q: And that white rectangle in the center does
[22] not indicate that that's an area that does not get
[23] signals?
[24] A: No, that's simply an identifier tag.

Page 46

[1] Q: Does the propagation that's reflected on
[2] Biby 7 reflect any translators or satellites that
[3] may be linked to WTTG?
[4] A: It does not.
[5] Q: Do I correctly understand that for
[6] locations that are within the red area on Biby 7,
[7] that your computer algorithm predicts that there is
[8] a 97 percent chance that those locations receive a
[9] signal of Grade B intensity from Channel 5, 97
[10] percent of the time, at a location 20 feet above
[11] ground level?
[12] MR. DEUTSCH: Well, go ahead.
[13] A: The answer is yes, but again -
[14] MR. DEUTSCH: I think that's not right.
[15] A: I was going to say, I have a problem with
[16] your question.
[17] Q: Tell me what your problem is, sir.
[18] A: Well, you use the word "area" is one
[19] problem I'm having here, and this is not an area
[20] depiction. This is a massive collection of
[21] point-to-point, from the WTTG transmitter to
[22] specific points, and this is a very important
[23] distinction in what we're discussing here. So
[24] "area" is - I really can't accept that term.

Page 47

[1] Q: Let me see if I can use a better term. Is
[2] "point" better than "area"?
[3] A: Specific locations or points.
[4] Q: For those specific locations that have red
[5] on them in Biby 7, your computer algorithm predicts,
[6] does it not, that there's a 97 percent chance that
[7] those locations - pardon me, those specific
[8] locations receive a signal of Grade B intensity from
[9] WTTG 97 percent of the time at a height 20 feet
[10] above ground level?
[11] MR. DEUTSCH: Before the witness answers
[12] and without addressing problem words, I actually
[13] think the map reflects 50 percent and not 97 percent
[14] temporal probability as an objective fact, whatever
[15] the implications of those numbers are -
[16] A: He is correct.
[17] MR. DEUTSCH: I believe the map represents
[18] 50 percent and not 97 percent temporal assumption,
[19] and I leave it to the witness to say more precisely
[20] than I can what that means, but as to what the
[21] number is, I believe it's 50 and not 97.
[22] MR. OLSON: We've just heard one of the
[23] most remarkable examples of witness coaching in my
[24] career as a lawyer.

Page 48

Page 5

(1) MR. DEUTSCH: I'm trying to simply avoid
(2) the witness stating something that's objectively not
(3) correct.

(4) Q: Tell me in your words how likely it is, in
(5) terms of location and time, that the specific
(6) locations that are shown in red on Bibb 7 receive a
(7) signal of Grade B intensity from Channel 5.

(8) A: Understanding that I am not a professional
(9) statistician, and I find phrasing discussions of
(10) statistics to be very difficult, I believe that
(11) those areas - pardon me, those points depicted in
(12) red on my Exhibit 7 indicate a 97 percent
(13) probability that at whatever the height was, there
(14) would be for this station 47 dBu or more signal
(15) strength. I'm not trying to complicate things here.

(16) Q: So is what you're saying that these maps
(17) were done with 97 percent location and 50 percent
(18) time?

(19) A: That is correct.

(20) Q: So your algorithm predicts, does it not,
(21) that these specific locations shown in red on Bibb 7
(22) are 97 percent likely to receive a Grade B signal
(23) from Channel 5 at least 50 percent of the time at a
(24) height of 20 feet above ground level, correct?

(1) this deposition. Exhibit D to Mr. Cohen's expert
(2) report, you will see, is captioned "New PrimeTime 24
(3) Subscribers to CBS in Dade and Broward Counties,
(4) July 1996 to November 1997." Do you see that?

(5) A: Yes, I see that.

(6) Q: I wonder if you would take a look at the
(7) list of names and addresses in Exhibit D. Just
(8) glance through it for a moment or two.

(9) MR. DEUTSCH: Why don't you ask a question
(10) about it.

(11) A: Am I looking for my niece? I think one
(12) page is as good as another.

(13) Q: Of the locations listed in Exhibit D to
(14) Mr. Cohen's expert report, how many of those
(15) locations have a signal of at least Grade B
(16) intensity in the air above their rooftops?

(17) A: Beg your pardon?

(18) MR. OLSON: Would you read that back.

(19) (Question read)

(20) MR. DEUTSCH: Obviously you're asking him
(21) whether he knows.

(22) Q: Yes, my question is, do you know?

(23) A: No.

(24) Q: Do you have any opinion about what

Page 49

Page 5

(1) A: If I may suggest a modification to your
(2) statement to remove a problem. "Receive" - well,
(3) I'll - if a signal strength of at least 47 dBu does
(4) exist at the stated height at those locations, the
(5) answer is yes. For some reason your use of the word
(6) "receive" troubles me.

(7) Q: How many subscribers does PrimeTime 24 have
(8) at specific locations shown in red on Bibb 7?

(9) A: I don't know.

(10) Q: I assume you also do not know what
(11) percentage of PrimeTime 24 subscribers within the
(12) FCC predicted Grade B contour of Channel 5 reside in
(13) one of the specific locations shown in red on Bibb
(14) 7. Is that correct?

(15) A: I don't know.

(16) Q: Have you made any effort to find out?

(17) A: I have not.

(18) Q: Have you been asked to make any effort to
(19) find out?

(20) A: I have not.

(21) Q: Let me ask if you would take a look at
(22) Exhibit D to the expert report of Jules Cohen. Mr.
(23) Cohen's expert report is already in the record, so
(24) I'm not going to mark this as a separate exhibit to

(1) percentage of those subscribers have a signal of
(2) Grade B intensity from the local CBS station -

(3) A: I do not.

(4) Q: - above their rooftops?

(5) A: I do not.

(6) Q: Let me ask you to assume that PrimeTime 24
(7) has stated that in November 1997 it had
(8) approximately 2.9 million subscribers across the
(9) United States. Do you follow that assumption?

(10) A: Across the United States, 2.9 million,
(11) November of 1997.

(12) Q: Right. And I want you to assume that when
(13) I use the phrase "Grade B intensity," I mean 47 dBu
(14) for low VHF, 56 dBu for high VHF, and 64 dBu for
(15) UHF.

(16) Do you have an opinion about how many of
(17) those 2.9 million PrimeTime 24 subscribers have
(18) available in the air above their rooftops a signal
(19) of Grade B intensity from a local CBS station?

(20) A: I do not.

(21) Q: Would your answer be the same with respect
(22) to Fox stations?

(23) A: Yes, the answer would be the same. I don't
(24) know, or I don't have an opinion.

Page 52

Page 53

[1] Q: What percentage of your work is done in the
[2] cellular industry?
[3] A: What percentage of my work while I was
[4] active full-time was done in the cellular industry?
[5] Q: Let's say over the past four years.
[6] A: I would guess in excess of 80 percent.
[7] Q: What percentage of your work over the past
[8] four years has been for the TV broadcast industry?
[9] A: Very little, if that's a satisfactory
[10] answer.
[11] MR. DEUTSCH: Whether or not that's a
[12] satisfactory answer, it's your answer.
[13] THE WITNESS: Well, he asked for "what
[14] percentage." He asked for quantity.
[15] Q: Have you reviewed the expert report
[16] prepared by Robert Culver in this matter?
[17] A: I have not.
[18] Q: Have you discussed that report with anyone?
[19] A: I have not.
[20] Q: Do you know Mr. Culver?
[21] A: Quite well.
[22] Q: Is he a competent broadcast engineer?
[23] A: I believe so. The answer to that is more
[24] affirmative than it sounded; yes, I believe so.

[1] which is several pages that are captioned "Measured
[2] Field Intensity WFOR-TV, Channel 4, Miami, FL." and
[3] let me direct your attention to the information that
[4] appears with respect to Location No. 503, which is
[5] on Sheet 3 of 4 of Exhibit F.
[6] A: I see it.
[7] Q: Do you see that this document reports that
[8] there was a median signal strength of approximately
[9] 111 dBu at Location 503?
[10] A: That's correct.
[11] Q: And you see that Mr. Cohen has subtracted a
[12] standard deviation to get an adjusted figure of
[13] approximately 110 dBu?
[14] A: That's what the asterisk says, yes.
[15] Q: You understand this measurement to have
[16] been taken on the street in front of the home or at
[17] a public road close to the home, correct?
[18] A: That's my understanding what Mr. Cohen
[19] says.
[20] Q: What should Mr. Cohen's engineers have done
[21] in measuring signal strength at that location?
[22] A: I'll allow that they have a real problem.
[23] I'm speaking as a person whose been there and done
[24] that. You have very real safety considerations,

Page 53

Page 55

[1] Q: Last time you checked?
[2] MR. DEUTSCH: Well, that's -
[3] MR. OLSON: That was intended to be a joke.
[4] MR. DEUTSCH: Yes, we want to make that
[5] clear.
[6] Q: In your expert report, which we've marked
[7] as Biby Exhibit 4, on Pages 11 and 12 you make some
[8] comments about Mr. Cohen's collection of field
[9] strength data, correct?
[10] A: I do.
[11] Q: And you state among other things, do you
[12] not, "It is virtually assured that the data
[13] [collected by Mr. Cohen] will not be representative
[14] of conditions present at the subscriber's home,
[15] which may well be surrounded by trees and other
[16] buildings. Had the signal strength data been
[17] collected at rooftop level at the subscriber's
[18] household, they would have shown the attenuating
[19] effects of 'urban clutter,' as discussed above."
[20] That is part of your expert report,
[21] correct?
[22] A: That's correct.
[23] Q: Let me direct your attention to Mr. Cohen's
[24] expert report again, and this time to Exhibit F.

[1] power wires banging into your antenna, into trees,
[2] that sort of thing, when you attempt to move with an
[3] antenna 30 feet in the air. You don't have
[4] unlimited choice of locations at which to make your
[5] mobile run.
[6] Now, there are some phenomena that enter
[7] here. I'm not prepared to discuss the vegetation,
[8] you know, at 1101 Hillcrest Street in Miami, but I
[9] assume that's sort of typical Americana. When one
[10] is in the clutter, in the vegetation, there are at
[11] least two important things that happen, that is, a
[12] continuation of the signal strength, an overall loss
[13] of signal strength, and a scattering effect, the
[14] trees and buildings cause the signal to go every
[15] which direction. Now, very quickly when one removes
[16] oneself from that clutter and goes to yon street,
[17] we've removed all of these scattering objects and
[18] these attenuating objects. Now, the effects can be
[19] dramatic.
[20] I realize I'm going to now talk about a
[21] much higher frequency, but just to illustrate the
[22] drama of this, I have had the experience of driving
[23] along a highway, such as one might be forced to use
[24] in taking these measurements, with a clear view back

Page 56

(1) toward the source of the radiation, and I'm speaking
(2) now cellular frequencies, turn at a right angle onto
(3) a secondary road so that all of a sudden trees were
(4) imposed into the propagation path. I've seen a
(5) signal loss of 1,000 to one, not 1,000 percent,
(6) 1,000 to one in terms of power, absolutely
(7) dramatic.

(8) Now, I will state for the record that
(9) probably the effects at VHF, be it high or low, are
(10) less than I just used in my illustration, but these
(11) effects are very significant. In substance, I just
(12) don't see how you can go over yonder, where it's
(13) possible to take a measurement or where you choose
(14) to do your measurements, and talk about what's over
(15) here. I just don't see that.

(16) MR. OLSON: Would you read the last
(17) question back please.

(18) (Question read)

(19) Q: Could you answer that question.

(20) MR. DEUTSCH: I think the witness has told
(21) you that he would measure in the clutter at the
(22) household instead of on the road where there is no
(23) clutter.

(24) MR. OLSON: I would like to hear the

(1) Now answering your question directly, how
(2) might one conceivably go about this problem of
(3) determining whether the household at rooftop level
(4) or whether there existed at the household at rooftop
(5) level a signal of intensity Grade B or greater -
(6) and I'm purposely dropping the word "received" out
(7) of the statement - does the signal strength exist
(8) at the household rooftop, in my opinion meaningful
(9) determination based on moving the receiving antenna
(10) to explore the variability of the signal in the
(11) immediate region can't really be applied here,
(12) because you really don't have enough freedom of
(13) movement.

(14) The only thing left to you is to install
(15) your antenna and observe it over a long period of
(16) time, because location variabilities, by and large,
(17) a substantial amount of the variability that
(18) troubles me here will translate to the time domain.
(19) How long you would have to observe it I can't guess
(20) offhand, but I know it's a long, long period of
(21) time.

(22) Q: Let me first ask, where would you put the
(23) antenna for this long period of time?

(24) A: Well -

Page 57

(1) witness tell me, rather than have the lawyer tell
(2) me.

(3) A: Also to a good extent, frankly, I was
(4) expressing fellow engineer empathy here. They were
(5) asked to do essentially a job that you can't really
(6) do. In direct answer to your question, "How would
(7) you do it?", I emphasize there is a real problem
(8) here.

(9) There is another method set forth in the
(10) FCC rules, something about cluster measurements
(11) taken in a regular pattern in the immediate
(12) vicinity. I have a problem with that; I have two
(13) problems with that. As I recall, the dimensions of
(14) the cluster area that's described are really greater
(15) than the typical rooftop, plus that is a procedure,
(16) along with this business of taking mobile runs at 30
(17) feet, intended to address issues of area coverage,
(18) does WTTG have a coverage area of 10,000 square
(19) miles, or is it 11,000 square miles, that sort of
(20) question. But clearly to me the two methods set
(21) forth in FCC rules, cluster measurements at 30 feet
(22) and mobile runs at 30 feet don't apply when one is
(23) talking about whether a specific household can
(24) receive a signal.

(1) MR. DEUTSCH: In the ideal world?

(2) Q: In terms of what you believe.

(3) A: Is the intent of the act?

(4) Q: Not the intent of the act. You've
(5) criticized the procedures that Mr. Cohen's engineers
(6) used.

(7) A: Sympathetically.

(8) Q: I want to know what procedures you believe
(9) they should have used.

(10) A: Since the act refers to a pretty well
(11) fixed-location rooftop antenna at the subscriber's
(12) location, I believe that precludes mobility in the
(13) measurement process. To me that's quite clear from
(14) the language. Therefore, the only option left is
(15) long-term observations in order to remove the
(16) variabilities that I know full well exist. Now, how
(17) high - I wouldn't put it literally on the rooftop;
(18) I don't think that was the intent. Your guess is as
(19) good as mine; five feet, six feet above the rooftop.

(20) Q: And how do you get an antenna five to six
(21) feet above the rooftop?

(22) A: I believe RadioShack supplies little masts
(23) that you stick up there and mount your antenna.
(24) I've seen them.

Page 60

Page 62

[1] Q: Here's the source of my confusion. Do you
[2] have in mind an engineer lifting an antenna with
[3] equipment up to a location above the rooftop, or do
[4] you have in mind installing an antenna actually on
[5] the house, as a homeowner would, and taking
[6] measurements from an antenna actually installed on
[7] the house?

[8] MR. DEUTSCH: I'm going to object. Your
[9] question was essentially what to measure; he's told
[10] you that. Now I guess you're going on and you're
[11] asking him a different question, what are techniques
[12] to get the measurement.

[13] MR. OLSON: Yes, that's what I'm asking.

[14] A: I'm going to ask you to repeat the
[15] question.

[16] Q: Sure. You had mentioned that it's possible
[17] to put an antenna in the air above the rooftop using
[18] a mast that you buy at RadioShack. Do you recall
[19] that?

[20] A: Yes, I do.

[21] Q: Is it your view that the correct way to
[22] measure the signal intensity at a particular
[23] household is to install an antenna above the roof of
[24] the household and to collect signal intensity data

[1] to know, if you wanted to test the signal intensity
[2] of Channel 5 at my house, concretely what would you
[3] do?

[4] A: Now we're being specific. I would try to
[5] work with you to develop a mutually satisfactory and
[6] convenient means of putting an antenna on your
[7] rooftop.

[8] Q: Would it be an antenna of known
[9] characteristics?

[10] A: Well, there's another - now you've
[11] introduced another area that disturbs me about the
[12] language that's been used here, terms like
[13] "conventional rooftop antenna." I personally
[14] strongly believe that the FCC, in framing the
[15] definition of Grade B signals and all of the
[16] background to our television allocations process, I
[17] believe they had pretty firmly in mind what they
[18] meant by a receiving antenna within the Grade B and
[19] within the Grade A, and we could go back through all
[20] the literature and discover what those intents
[21] were. But we've been using - so many words with
[22] undefined meanings have been tossed around in here
[23] that I'm at a loss to proceed.

[24] Q: Let me take the antenna out of the

Page 61

Page 63

[1] from the transmission line connected to that antenna
[2] over a long period of time?

[3] A: We went, it seems to me, from your asking
[4] me a reasonably clear technical question, to which I
[5] gave you a technical answer, to surmising as to how
[6] this might be implemented. I really don't know how
[7] I can respond - you know, it's a fuzzy question.

[8] Q: What I'm trying to get at, Mr. Biby, is
[9] what is the practical procedure that an engineer
[10] should follow in the real world in measuring the
[11] signal intensity available in the air above a
[12] particular household rooftop?

[13] MR. DEUTSCH: He's told you, put an antenna
[14] there.

[15] A: I've told you.

[16] Q: And how physically do you get the antenna
[17] into that space, as a practical matter, as a
[18] practicing engineer?

[19] MR. DEUTSCH: Can you answer his question?

[20] A: I can't answer your question. We went from
[21] a question of which I feel capable of providing a
[22] technical answer, which I did, to surmising what
[23] might be the case -

[24] Q: I don't want to ask you to surmise. I want

[1] question. Am I correct that if you wanted to
[2] determine the signal intensity that is present in
[3] the air over a particular rooftop, you would place
[4] an antenna at that location and take signal
[5] intensity measurements over a long period of time?

[6] A: That is correct. That's the only
[7] alternative I see. Others might have different
[8] insight to address this question of how do you
[9] determine the signal strength at the subscriber's
[10] rooftop.

[11] Q: When you're measuring signal strength, what
[12] you literally do is to measure the voltage at the
[13] bottom of a transmission line from an antenna?

[14] A: That's exactly correct.

[15] Q: In order to calculate what the signal
[16] strength is in the air, you need to know the
[17] characteristics of your antenna and transmission
[18] line.

[19] A: That's correct.

[20] Q: If you do not know those characteristics,
[21] then you cannot reason from the voltage at the
[22] bottom of the transmission line to the signal
[23] intensity in the air; is that correct?

[24] A: That is correct.

Page 64

[1] Q: So am I correct that when you're putting an
[2] antenna in the air above a rooftop for purposes of
[3] this measurement procedure that we're describing,
[4] that must be an antenna that has characteristics
[5] that are known to you?

[6] A: One hopes, yes.

[7] Q: For example, the standard procedure is to
[8] use a standardized dipole antenna in collecting
[9] signal intensity data, correct?

[10] A: That's the usual procedure, yes.

[11] Q: If one is using a different antenna, then
[12] one needs to calibrate that against a dipole
[13] antenna, correct?

[14] A: No.

[15] Q: You need to calibrate whatever antenna
[16] you're using, you need to calibrate that so you know
[17] its characteristics for purposes of determining
[18] signal intensity in the area.

[19] A: You need to know the characteristics of
[20] your receiving antenna, that is, specifically in
[21] terms of the gain of the antenna usually expressed
[22] relative to a dipole.

[23] Q: And you also need to know the losses, if
[24] any, along the transmission line.

Page 65

[1] A: That is correct.

[2] Q: I realize you may not be able to be
[3] precise, but can you give me some sense of how long
[4] a period you would need to collect signal intensity
[5] from this antenna above the rooftop of the location
[6] we're discussing.

[7] A: I really can't, based on some very real
[8] firsthand experience. Let's take an extreme
[9] indication of Mr. Cohen's depictions in the San
[10] Joaquin Valley. He indicated or predicted Grade B
[11] signal strengths at enormous distances; I recall in
[12] excess of 120 miles. The long term, that is, over a
[13] period of a year or more, variability of signals in
[14] the San Joaquin Valley and other portions of
[15] California have long known to be - the variability
[16] has long been observed to be astounding.

[17] So in some cases depicted in Mr. Cohen's
[18] maps, one might have to observe for multiple sunspot
[19] cycles. Other cases I would allow, if one were in a
[20] relatively clear location within sight of the
[21] transmitting antenna, even a few minutes might do.

[22] Q: Based on your experience over many years in
[23] the field as a broadcast engineer, how long do you
[24] think it would take you if you were coming to my

Page 65

[1] house and installing an antenna of known
[2] characteristics above my house and setting up your
[3] equipment to test signal intensity?

[4] MR. DEUTSCH: Are you asking how long he
[5] would need to leave the antenna above your house or
[6] how long to set up the antenna?

[7] Q: To set up the antenna and to set up your
[8] equipment to start taking measurements.

[9] MR. DEUTSCH: Do you want to tell him
[10] anything about the characteristics of your house?

[11] Q: Let's just say the average house based on
[12] your experience around the country over the past few
[13] decades.

[14] A: Of course the answer to that is there is no
[15] such thing. But if one were doing this very
[16] expensively, one might hire a large crane to sit out
[17] in the front of the house and arrange to have some
[18] instrument to determine the exact location above the
[19] household, open a window or door, and run the
[20] transmission line through - a few minutes to set up
[21] the process. How long it would take to do it other
[22] ways I can't speculate, but I'm trying to keep the
[23] time to a minimum here, not necessarily the
[24] expense. I don't know where you live. Do you live

Page 66

[1] in D.C.?

[2] Q: I live in Bethesda, two-story house.

[3] A: I'm not trying to evade at all here, but I
[4] really don't know. There also comes the question of
[5] to what precision. My point here is that,
[6] summarizing what I've stated, in my view, in my
[7] strongly held opinion, the language in the act works
[8] pretty well force one to make single-point
[9] observations, and at that point there are a lot of
[10] other variabilities, translating to the time domain,
[11] and how long it would take for those variabilities
[12] in the time domain to settle down. I don't know. I
[13] would give guesses anywhere from hours to years.

[14] Q: You think that at a minimum you would want
[15] to collect data over a period of hours; is that
[16] correct?

[17] A: Let's get to a point here, that if the
[18] signal strength at the point of observation is 40
[19] decibels above the threshold value Grade B signal
[20] intensity, there is probably an extremely low, or
[21] there is an extremely low probability that it would
[22] any significant amount of time drop below that
[23] value, because we're probably talking about
[24] 3 percent here, probably. But if there's a margin

Page 68

Page 70

[1] less than enormous, one would have to observe it
[2] longer. Did I give you an answer to your question?
[3] Q: That's helpful. Let me ask a follow-up
[4] question or two. For low VHF stations the Grade B
[5] level is 47 dBu, correct?
[6] A: Yes.
[7] Q: So if you came to a house and for five
[8] minutes measured a signal of 54 dBu, how long would
[9] you need to stay at that location before you became
[10] confident that it had a signal of at least 47 dBu?
[11] A: The answer to that question is, I don't
[12] know, and I believe I've expressed that before.
[13] Q: How would you go about determining how long
[14] you'd need to stay and collect data at a particular
[15] location?
[16] A: I'd probably do a consulting contract with
[17] the Bureau of Standards and let them tell me. That
[18] was not a facetious answer. Cranking in all of the
[19] variabilities and how long it would take to come to
[20] some answer within a stated degree of precision,
[21] that's beyond my expertise.
[22] Q: I think I know the answer to this question,
[23] but I take it that the procedures that you're
[24] describing here are not ones that are recorded in

[1] Q: Why is that?
[2] MR. DEUTSCH: Could I have the question and
[3] answer back.
[4] (Record read)
[5] A: Question of the condition of your receiving
[6] equipment.
[7] Q: Can you elaborate a little bit.
[8] A: I think you've been through that very well
[9] yourself. You alluded to deterioration of antennas
[10] and transmission lines and that sort of thing.
[11] Q: Well, at Location No. 503 on Exhibit F to
[12] Mr. Cohen's expert report, that is, at 1001
[13] Hillcrest Street, if you had measured signal
[14] intensity at that household in the general way
[15] you've just been describing over the past few
[16] minutes, what results would you have got?
[17] A: Realizing that I have no idea of the
[18] proximate relationship between where the measurement
[19] was taken and the subject subscriber's household,
[20] but in a neighborhood with a signal strength,
[21] adjusted signal strength of 110, where the target
[22] value is 47, this being low VHF -
[23] MR. DEUTSCH: You should answer if you
[24] know. You should not guess.

Page 69

Page 71

[1] any FCC or other governmental document.
[2] A: Oh, I think the answer to that is a strong
[3] no. There is a very significant collection of
[4] long-term observation data done between fixed points
[5] that has been published over the years by the Bureau
[6] of Standards, so I think the answer is a strong no.
[7] Q: My question is, is there a set of
[8] procedures that the federal government has
[9] promulgated -
[10] MR. DEUTSCH: You mean a set of measurement
[11] procedures.
[12] MR. OLSON: Let me start again.
[13] Q: Is there a set of measurement procedures
[14] that the federal government has promulgated for
[15] taking signal intensity measurements above the
[16] rooftops of particular households?
[17] A: The answer to your question as framed is
[18] no, not to my knowledge.
[19] Q: If you came to my house and took a
[20] measurement at the bottom of the transmission line
[21] from the old rooftop antenna that's up there, what
[22] would you be able to determine about the signal
[23] intensity in the air above my household?
[24] A: Very little if anything.

[1] A: No, I don't know what the signal strength
[2] over at the...
[3] Q: Do you have an opinion about whether it's
[4] more likely than not that the signal strength above
[5] the rooftop of that home would be more than 47 dBu?
[6] MR. DEUTSCH: Not knowing where the
[7] measurement was taken.
[8] A: Not knowing?
[9] Q: Assuming that the measurement was taken, as
[10] Mr. Cohen has stated, either in most cases on the
[11] street in front of the house or on the nearest
[12] accessible public road.
[13] A: Assuming that, I've actually addressed this
[14] question before and I stated that if one is 40
[15] decibels or more - I'm using an example above the
[16] threshold value - the likelihood of failing to meet
[17] the required signal strength at this house is not
[18] great, it's remote.
[19] Q: So I don't mean to pin you down to that
[20] particular number, but for 47 dBu is it your
[21] testimony that if the measurement is 87 dBu at least
[22] on the street in front of the house that -
[23] A: We use the case at hand. It was 110, as
[24] compared with 47.

Page 72

[1] Q: You had mentioned in your answer the
[2] number 40 above a threshold value, so my question
[3] is, if the signal intensity is measured to be 40
[4] decibels above the Grade B minimum when you measure
[5] on the street in front of a house, are you of the
[6] view that it's more likely than not that the signal
[7] strength is at least Grade B above the house?
[8] MR. DEUTSCH: Assuming that's all the
[9] information you have.
[10] A: Sure, yes. I would phrase it as highly
[11] unlikely that it would be less, under the very
[12] carefully constructed circumstances you just
[13] outlined.
[14] MR. DEUTSCH: And do I understand that the
[15] only information you're giving him to make the
[16] decision is that information you set out?
[17] MR. OLSON: That's right.
[18] Q: How many dBu's above the Grade B minimum
[19] would you want there to be in order to say that it's
[20] more likely than not that there is a Grade B signal
[21] above the rooftop?
[22] A: Can't quantify that.
[23] Q: Well, if the signal is ten times stronger
[24] than Grade B measured on the street in front of the

[1] MR. OLSON: I mean the kind of measurements
[2] that Mr. Cohen made.
[3] A: Mr. Cohen passed by Mr. Blank's house.
[4] centered a 100-foot mobile run at 30 feet antenna
[5] elevation and measured a median signal strength of
[6] 67 dBu for that particular run, is the way I
[7] understand you to have just structured your
[8] question.
[9] Q: Fine.
[10] A: We now address the question of, in my
[11] opinion, is it highly probable or not that at
[12] rooftop level in your house there is a signal
[13] strength of 47 dBu or greater?
[14] Q: Let me just stop you. Not "highly
[15] probable," more likely than not, 50.1 percent
[16] likely.
[17] A: Frankly, I couldn't have structured the
[18] question better if I had done it myself, because
[19] you're about as close to the "can't tell" as you
[20] could get. Your 20 dB is right in the region of the
[21] normal sort of variability that I would expect in,
[22] for instance, a Washington, D.C., suburban
[23] neighborhood, going from median to observed at a
[24] specific location.

Page 74

Page 73

[1] house, do you think it's more likely than not that
[2] there's at least a Grade B signal on the rooftop
[3] above the house?
[4] MR. DEUTSCH: Do you want to state that in
[5] dB units, which is the way you were talking? Is it
[6] 10 dB more?
[7] Q: I'm sorry, no, 20 dB more.
[8] A: You said "ten times," which is -
[9] Q: 20 dB.
[10] A: Let's talk in terms of power, because
[11] basically the decibel is a power measurement unit.
[12] Please, let's not confuse the discussion here by
[13] throwing in voltage.
[14] Q: Let me ask the question in a different way
[15] to avoid the confusion. Grade B is 47 for low VHF.
[16] right?
[17] A: Decibels relative to one microvolt, yes.
[18] Q: If you know that you've made a measurement
[19] of 67 dBu on the street in front of a house, is it
[20] more likely than not in your professional opinion
[21] that there are at least 47 dBu above the house?
[22] MR. DEUTSCH: When you say "made a
[23] measurement" in the street, do you mean a 100-foot
[24] run, do you mean at 30 feet in the air?

Page 74

[1] Q: What about if the 67 dBu figure is the
[2] median less one standard deviation of the readings
[3] from the 100-foot run?
[4] A: Still can't call it. Now, you're also -
[5] MR. DEUTSCH: Just answer his questions.
[6] A: Can't say.
[7] Q: If a rooftop antenna on a house were at 35
[8] feet, would it be proper in your view to take signal
[9] intensity measurements with an antenna at 15 feet?
[10] MR. DEUTSCH: Can you specify the purpose
[11] and the location. I don't understand the question
[12] as you phrase it: it's so abstract.
[13] Q: If you're attempting to assess the signal
[14] intensity in the air where a household antenna is,
[15] is it appropriate to measure the signal intensity at
[16] a height that is 20 feet lower than the household
[17] antenna?
[18] MR. DEUTSCH: You mean to state in the
[19] question whether or not the household antenna is a
[20] conventional rooftop antenna in terms of statute?
[21] MR. OLSON: I'm just talking about the
[22] availability of a particular signal intensity in the
[23] air without regard to location.
[24] MR. DEUTSCH: Without regard to whether

Page 76

Page 76

(1) that is the location that the Satellite Home Viewer
(2) Act indicates as determinative for eligibility?
(3) MR. OLSON: I'll start the question over,
(4) because I think it's gotten a bit cluttered with
(5) commentary.

(6) Q: You're trying to determine the signal that
(7) is in the air above a particular rooftop, okay? You
(8) now -

(9) MR. DEUTSCH: Well, it's going to get -
(10) might as well stop there, because when you finish,
(11) I'm going to come back and object to what you said
(12) so far. Any particular location above?

(13) MR. OLSON: Location where a household
(14) could put a rooftop antenna.

(15) MR. DEUTSCH: Conventional rooftop antenna
(16) or any rooftop antenna? Because clearly you could
(17) put some antenna at any height.

(18) MR. OLSON: A location, let's say, 5 feet
(19) above the top of the roof, all right?

(20) MR. DEUTSCH: Okay.

(21) Q: An engineer now conducts measurements of
(22) signal intensity using an antenna 15 feet above the
(23) ground in the driveway of that household. Is that
(24) in your view an appropriate method for assessing the

(1) Mr. Culver took signal intensity measurements on the
(2) street near a household. In your view, do those
(3) data provide reliable information about the signal
(4) intensity above the rooftop of the home in question?

(5) A: We've had considerable discussion that if
(6) the margin between target value, 47 dB or whatever
(7) it is, and observed in the immediate vicinity is
(8) above some value, whatever that threshold might be,
(9) that would be a strong indicator that, yes, a signal
(10) of the threshold value probably exists over there,
(11) up there and over there; but proof, no, it's not
(12) proof.

(13) Q: So if one measured 61 dBu at a 15-foot
(14) antenna height in the street near a house, can you
(15) conclude that it's more likely than not that the
(16) signal intensity above the house is less than 64
(17) dBu?

(18) A: I believe there was an earlier question
(19) that was very similar in structure, and I believe my
(20) response was "I can't really say."

(21) Q: Okay. Are you familiar with the FCC's
(22) proceeding in which they are allocating digital
(23) channels to television stations?

(24) A: I have followed that proceeding over the

Page 77

Page 79

(1) signal intensity available above the rooftop?

(2) MR. DEUTSCH: Do you mean to say whether or
(3) not the engineer could have gone higher, or was he
(4) prevented by logistical considerations from going
(5) higher?

(6) MR. OLSON: I am going to have to give
(7) awards for coaching today, but I have in mind simply
(8) that they do it at a height 20 feet lower for
(9) whatever reason.

(10) A: Let me state your question as I think I
(11) understand it: Can I take a measurement at 15 feet
(12) above ground in somebody's driveway and purport that
(13) that is the signal strength up there on the rooftop
(14) over yonder? I can't do that.

(15) Q: And this may be a bit of review, but why
(16) can't you do that?

(17) A: We've been talking a lot about location
(18) variability and variability of signal strengths.

(19) Q: Those are the factors that lead you to say
(20) that the 15-foot test in the driveway is not
(21) appropriate?

(22) A: Is not sufficient to know the signal
(23) strength over yonder and up there, so to speak.

(24) Q: Let me ask you to assume that in some cases

(1) decade or so that it's been around, so the answer in
(2) general is yes.

(3) Q: In general, am I correct that the FCC is
(4) attempting to assign digital channels to stations
(5) that currently have analog channels assigned to
(6) them?

(7) A: That is correct.

(8) Q: Am I correct that the FCC has attempted in
(9) that process to replicate the coverage areas in the
(10) digital world that stations now have in the analog
(11) world?

(12) A: That is correct.

(13) Q: Did the FCC use propagation software in
(14) attempting to replicate the propagation areas of
(15) analog and digital stations?

(16) A: It's my understanding they did, yes.

(17) Q: What software did the FCC use?

(18) A: Mine.

(19) Q: They used Biby-C?

(20) A: I believe they turned off the morphology,
(21) but the FCC bought that program from me.

(22) Q: But did they use the standard Longley-Rice
(23) model, or did they use the Longley-Rice Plus that
(24) we've discussed?

Page 80

(1) A: I think it's clear they stated in their
(2) documentauon they used the straight Longley-Rice.

(3) Q: Is that version 1.2.2?

(4) A: I remember the 1.2. something, the latest
(5) version that Dr. Hufford at the Bureau of Standards
(6) has issued. I thought it was 1.2.1, but that's
(7) okay.

(8) Q: So in attempting to replicate in the
(9) digital world the coverage areas that TV stations
(10) have today as analog broadcasters, the FCC did not
(11) choose to use the morphology supplement that you've
(12) created to the standard Longley-Rice program; is
(13) that correct?

(14) A: I don't know.

(15) Q: Do you have any reason to believe that the
(16) FCC utilized your morphology additions to the
(17) standard Longley-Rice software?

(18) A: For what purpose?

(19) Q: For purposes of replicating the coverage
(20) areas between analog and digital.

(21) A: It's my understanding that they chose to
(22) not use that extension.

(23) Q: Did you ever attempt to persuade the FCC to
(24) use that extension?

(1) Q: Within the target area, which I believe
(2) you've indicated is the traditional FCC Grade B
(3) contour, correct?

(4) A: That's correct; that's what I said.

(5) Q: Within that contour, what locauon and time
(6) variabilities did the FCC use in applying the
(7) Longley-Rice model?

(8) A: For the purposes of attempting to replicate
(9) the predicted area coverage, the FCC, as I recall,
(10) used 50 percent time, 50 percent area, and for lack
(11) of a better third number, which is called
(12) "confidence" in that model, used 50 percent
(13) there - 50, 50, 50.

(14) Q: What about the height of the receiving
(15) antenna; what height did they assume?

(16) A: You know, I really don't recall, probably
(17) 30 feet.

(18) Q: Would 10 meters sound right to you?

(19) A: 30 feet is a little less or a little more.

(20) Anyway, it's 9.4 meters.

(21) MR. OLSON: Off the record.

(22) (Discussion off the record)

(23) Q: Has the FCC, to your knowledge, required
(24) the use of the morphology supplement that you have

Page 81

(1) A: I did not.

(2) Q: Do you know whether anyone did?

(3) A: I don't know.

(4) Q: What location and time probabilities, with
(5) regard to analog stations, did the FCC use in
(6) creating propagation areas for analog television
(7) stations?

(8) A: I can only answer that question to the best
(9) of my recollection. In that context my answer is as
(10) follows: I really - the Illinois phrase is "don't
(11) have a dog in that fight" - I'm not fighting
(12) channel allocations, et cetera, so my understanding
(13) from reading something called "OET Bulletin 69," I
(14) believe dated 1998 or very recently, where the FCC
(15) gives a methodology for applying Longley-Rice to the
(16) questions we're discussing, my understanding of that
(17) language was that in order to determine the analog
(18) coverage areas, they use their, you know, their
(19) long-standing conventional approach, which is a
(20) graphical approach, it's not Longley-Rice.

(21) I'm responding as best as I can to your
(22) question. That's my understanding of how they
(23) developed the target areas for each of the
(24) stations.

(1) developed in connection with evaluations of the
(2) propagation of TV stations?

(3) A: No.

(4) Q: Do you know of any other governmental body
(5) that has required the use of your morphology
(6) supplement in connection with evaluating the
(7) propagation of television stations?

(8) A: Responding narrowly to your question as
(9) phrased, "governmental body," the answer is no.

(10) MR. OLSON: Shall we have lunch.

(11) MR. DEUTSCH: Okay.

(12) (Whereupon luncheon recess was
(13) taken at 12:25 p.m.)

Page 84

(1) AFTERNOON SESSION (1:10 p.m.)
(2) BY MR. OLSON:
(3) Q: Is the RFCAD software commercially
(4) available to anyone who wants to buy it?
(5) A: To the best of my knowledge, yes.
(6) Q: Approximately how much does it cost?
(7) A: I really don't know.
(8) Q: Would it be possible, to the best of your
(9) knowledge, to use the RFCAD software to determine
(10) predicted propagation areas for any television
(11) station?
(12) MR. DEUTSCH: In the United States?
(13) MR. OLSON: In the United States.
(14) A: There were some words, "predicted" what?
(15) Q: Let me ask a different way. In your
(16) rebuttal report you have a couple of maps showing
(17) coverage areas for Channel 5 in Washington, right?
(18) A: I have a couple of maps showing for a very
(19) large collection of specific points those that were
(20) predicted to have a signal strength of whatever the
(21) threshold was or greater.
(22) MR. DEUTSCH: With certain probabilities.
(23) MR. OLSON: Right.
(24) Q: And one could use that same software, could

Page 85

(1) one not, to generate similar maps for other CBS and
(2) Fox stations in the United States?
(3) A: Correct.
(4) Q: One could also use that software at a
(5) 50 percent location setting to produce maps of those
(6) same stations, correct?
(7) A: I don't think I answered your first
(8) question, and I believe the answer was yes, you
(9) could use it for other stations, and yes, you could
(10) use it for 50 percent, which I believe we did in
(11) fact for WTTG.
(12) Q: Right. One could produce maps
(13) corresponding to those you did for WTTG for other
(14) CBS and Fox stations?
(15) A: Yes.
(16) Q: Are you familiar with software that enables
(17) one to identify a particular location on a
(18) computerized map through use of latitude and
(19) longitude information?
(20) A: Yes.
(21) Q: And, for example, if we wanted to -
(22) A: Well, wait a minute.
(23) MR. DEUTSCH: Okay.
(24) Q: I'm sorry?

Page 85

(1) A: If you asked the question I thought you
(2) were asking "to identify," my answer was "to
(3) locate."
(4) Q: That's a better word. For example, your
(5) office in Arlington, if we wanted to locate that on
(6) a map of the Washington area by using latitude and
(7) longitude information, how would you go about doing
(8) that?
(9) A: What is "that"?
(10) Q: Locating your office in Arlington as
(11) precisely as possible on a map of the Washington
(12) area using latitude and longitude.
(13) A: Given latitude and longitude of the Bibby
(14) offices in Arlington, Virginia, and access to, for
(15) instance, a geological survey, topographic map of
(16) that area, it's just simply a straightforward
(17) scaling job, mechanical sort of procedure, to locate
(18) the point given the latitude and longitude.
(19) Q: Do you know of any methods for determining
(20) the latitude and longitude of particular addresses
(21) using computer software?
(22) A: Yes. The concept is called geocoding.
(23) Q: Have you ever personally used or been
(24) involved in the use of geocoding?

Page 87

(1) A: Not extensively. I seem to recall having
(2) been shown how it works.
(3) Q: Do you recall the context in which you saw
(4) that?
(5) A: No.
(6) Q: Do you know roughly what percentage of
(7) American television households subscribe to cable?
(8) A: Do I know? No.
(9) Q: Would you accept that - I'll ask you to
(10) accept that it's somewhere in the neighborhood of 60
(11) to 70 percent. Do you accept that?
(12) A: Yes.
(13) MR. DEUTSCH: You mean for purposes of the
(14) question; you're not asking him to agree that it's
(15) accurate?
(16) MR. OLSON: I'm not asking him to agree
(17) that it's accurate, just accept it for purposes of
(18) next few questions.
(19) Q: If one has a subscription to cable, is it
(20) necessary to maintain a rooftop antenna in order to
(21) obtain programming from local network stations?
(22) A: Assuming that the cable system has elected
(23) to carry subject local stations, it would not be
(24) necessary to have an antenna.

Page 88

[1] Q: Are you familiar with FCC's "must carry"
[2] rules?
[3] A: Yes.
[4] Q: Is it not the case that in most cases cable
[5] systems are actually required to carry their local
[6] TV stations?
[7] A: As a general answer to your question,
[8] yes - no, it's not necessary to have an outdoor
[9] antenna.
[10] Q: What percentage of American TV households,
[11] if you have knowledge, have properly functioning
[12] rooftop antennas?
[13] A: I have no knowledge.
[14] Q: Have you ever encountered the phenomenon of
[15] a household that has a rooftop antenna but that has
[16] not used it or maintained it because that household
[17] has switched to cable?
[18] A: My own, for example.
[19] Q: When did you switch to cable?
[20] A: Essentially when it became available, very
[21] quickly.
[22] Q: Roughly when was that?
[23] A: When did cable come into Arlington? The
[24] number that came to mind when you asked the

[1] MR. DEUTSCH: You are characterizing it as
[2] an area after the witness has told you repeatedly it
[3] is a collection of points.
[4] Q: It appears to me that the collection of
[5] points at the center of this map includes an area in
[6] which all of the points are red, as near as I can
[7] tell. That includes the downtown business district
[8] of Washington, D.C. Did you form that impression by
[9] looking at Biby Exhibit 7?
[10] A: I didn't form the impression, because I
[11] wasn't looking at that, but I'll accept your -
[12] Q: Well, let's assume that that's true for the
[13] moment. There are buildings and other urban clutter
[14] in downtown Washington, D.C., correct?
[15] A: Yes.
[16] Q: If the points on Biby 7 that represent the
[17] locations of the downtown business district in
[18] Washington are red, is that because the locations
[19] are so close to the transmitting tower that the
[20] signal there is strong enough to overcome urban
[21] clutter?
[22] A: Yes.
[23] Q: In general, when there is a large
[24] concentration of buildings, will that typically be

Page 88

[1] question, the number that came to mind, is 13 years.
[2] Q: Do you still have a rooftop antenna on the
[3] roof of your house?
[4] A: Yes, I do.
[5] Q: Is it hooked up to anything?
[6] A: It is not.
[7] Q: Do you have any knowledge of what condition
[8] it's in in terms of its ability to pick up and
[9] transmit signals?
[10] A: I do not.
[11] Q: We don't have the colored version of Biby
[12] Exhibit 7 with us, because it's being copied, but if
[13] I could show you the black and white version of it
[14] which is the last page of Biby Exhibit 5 for a
[15] moment, do you recall that it appeared that -
[16] strike that. It appeared to me that the downtown
[17] business district in Washington was within the red
[18] area on that map.
[19] MR. DEUTSCH: Can I -
[20] Q: Did it appear that way to you?
[21] MR. OLSON: I can ask the question, Steve.
[22] MR. DEUTSCH: You can, and I can object to
[23] it.
[24] MR. OLSON: Please feel free to object.

Page 88

[1] in a population center that has its own TV stations?
[2] A: Where there is a large collection of tall
[3] buildings, I believe you said, will that typically
[4] be in an area that has its own local TV stations? I
[5] don't think we can - again, we have a problem with
[6] the word "typically." Depending on how you define
[7] the word "typically," your statement is plausible.
[8] Q: Just to give you some real world examples,
[9] here in Boston there are plenty of tall buildings,
[10] right?
[11] A: Yes.
[12] Q: But there are local TV stations here in
[13] Boston, correct?
[14] A: Yes.
[15] Q: Under the FCC regulations those stations
[16] are required to place at least an FCC predicted
[17] city-grade signal over the principal city of
[18] license, correct?
[19] A: The predicted city-grade signal strength
[20] contour, as predicted on the basis of the FCC's area
[21] prediction model, must encompass the entirety of the
[22] community of license, yes.
[23] Q: And for a low VHF station where Grade B is
[24] 47 dBu, what is the number of dBu that corresponds

Page 92

[1] to city grade?
[2] A: You know. I really don't recall offhand.
[3] Perhaps you can tell me.
[4] MR. OLSON: Off the record for a second.
[5] (Discussion off the record)
[6] MR. OLSON: Back on the record.
[7] Q: Am I correct, Mr. Biby, that as you've
[8] identified off the record, Section 73.685 of the
[9] FCC's rules indicates that the dBu corresponding to
[10] city grade for low VHF channels is 74; is that
[11] correct?
[12] A: Correct.
[13] Q: And that is 27 dB above the Grade B minimum
[14] for a low VHF station, correct?
[15] A: I believe it's correct, yes.
[16] Q: So is it fair to say that the FCC intends
[17] television stations to put out a signal within their
[18] city grade that is considerably stronger than a
[19] merely Grade B intensity signal?
[20] THE WITNESS: Let's have the question
[21] again, please.
[22] (Question read)
[23] A: I'm not going to quibble over the use of
[24] the word "intends." I don't know what the FCC

Page 93

[1] intended.
[2] MR. DEUTSCH: Well, that's the end of the
[3] question and answer, then, because he asked you if
[4] you know what the FCC intended.
[5] THE WITNESS: And I don't.
[6] MR. DEUTSCH: Okay.
[7] Q: The impact of the FCC rules, then, if you
[8] could answer the questions in terms of that, as
[9] opposed to the FCC's intent -
[10] MR. DEUTSCH: What's the question?
[11] Q: Under the FCC's rules, stations are
[12] required to put out a signal substantially stronger
[13] than merely of Grade B intensity within their city
[14] grade, correct?
[15] MR. DEUTSCH: Well, the question is
[16] circular. "City grade," by definition, is larger
[17] than Grade B. You simply asked him if they required
[18] to have a city grade that's substantially larger
[19] than Grade B, but city grade is defined as
[20] substantially larger than Grade B, so I don't
[21] understand your question. You didn't ask him -
[22] well, I object. The question is meaningless as far
[23] as I understand it.
[24] A: The words in 73.685(a), I believe, address

Page 94

[1] your question. "The transmitter location shall be
[2] chosen so that, on the basis of the effective
[3] radiated power and antenna height above average
[4] terrain employed, the following minimum field
[5] strength in dB above one microvolt per meter will be
[6] provided over the entire principal community to be
[7] served."
[8] Q: If I'm in an area that has significant
[9] urban clutter, would you expect to see the effects
[10] of that urban clutter at 30 feet as well as at 20
[11] feet?
[12] A: Yes, sir.
[13] Q: In your expert report, Biby Exhibit 4, on
[14] Page 3 you state, "Recognizing that the basic
[15] Longley-Rice model does not consider the effects of
[16] buildings and vegetation ('morphology') upon radio
[17] waves, I collected signal strength data at a variety
[18] of frequencies and in numerous environments," on the
[19] basis of which "I designed and implemented a
[20] computational algorithm to adjust the Longley-Rice
[21] predictions to the realities of the observed data."
[22] MR. DEUTSCH: That's not exactly a
[23] repetition of the quote, but close enough.
[24] MR. OLSON: What did I miss?

Page 95

[1] MR. DEUTSCH: You didn't. You paraphrased
[2] certain places, but I believe you quoted the sense
[3] of it.
[4] MR. OLSON: I didn't intend to do so, but
[5] in any event I was attempting to read the sentence
[6] that starts at the top of Page 3 of Mr. Biby's
[7] report.
[8] Q: My question is, you refer there to signal
[9] strength data at a variety of frequencies and in
[10] numerous environments.
[11] A: Yes.
[12] Q: Where is it possible, if it is possible, to
[13] take a look at those data?
[14] A: Focusing my response on data that had any
[15] impact upon the report being discussed, the answer
[16] is no, I don't even know - I haven't been able to
[17] find any of those data sets.
[18] Q: And these are data sets on the basis of
[19] which you've designed and implemented the
[20] Longley-Rice Plus algorithm, correct?
[21] A: Correct.
[22] Q: Is it your testimony that those data simply
[23] are no longer available to you?
[24] A: That is correct.

Page 96

[1] Q: Do you know if they're available to anyone?
[2] A: I don't know that they are.
[3] Q: During what time period did you collect
[4] those data?
[5] A: Roughly stated, the mid-to-late 1980 time
[6] frame.
[7] Q: Mid-to-late 1980s, or -
[8] A: 1980s, 1984 approximately through probably
[9] the end of the decade. Again, we're focusing on
[10] data that had any impact upon the report being
[11] discussed.
[12] Q: But what I'm focusing on is the data that
[13] you relied on in developing your Longley-Rice Plus
[14] algorithm. Do you follow me?
[15] A: Yes.
[16] Q: And those data you collected in the
[17] mid-to-late 1980s; is that right?
[18] A: That's my recollection.
[19] Q: What percentage of the data that you
[20] collected was in frequencies used by the cellular
[21] industry?
[22] A: I realize I'm repeating myself, but data
[23] that had any effect on this report at hand -
[24] Q: The data that you relied on to create the

[1] MR. OLSON: If you may have a proprietary
[2] interest in it, but there's no third parties, you
[3] would say, "Mr. Biby, I forbid you to release that
[4] data."
[5] A: There were sets of data on which there was
[6] no third party with proprietary interest.
[7] Q: How about Channel 4; do you recall whether
[8] that was done on your own as opposed to for Channel
[9] 4, for NBC?
[10] A: I don't recall exactly what happened there,
[11] because there were some timing problems, and as I
[12] recall that project was not completed.
[13] Specifically, they ran up a tower in the way of the
[14] antenna I was measuring, so it came to a halt all of
[15] a sudden, and frankly I don't know what happened to
[16] the data.
[17] Q: Are there any other particular television
[18] stations that you recall taking measurements of as
[19] you put together the data that you used in adjusting
[20] the Longley-Rice predictions?
[21] A: Not that I recall offhand.
[22] Q: You mentioned earlier that you had done a
[23] lot of signal strength measurements in Charlotte,
[24] North Carolina.

Page 97

[1] computational algorithm to adjust the Longley-Rice
[2] predictions to the reality of the observed data.
[3] A: Those sets of data were probably pretty
[4] well balanced amongst the low frequencies used by
[5] highway patrols, FM and television broadcast, and
[6] what was then the only cellular at roughly 880
[7] megahertz. Probably, roughly, evenly dispersed.
[8] Q: What TV stations do you remember collecting
[9] data from?
[10] A: I believe we at one time had data on
[11] Channel 4 in Washington, but frankly I don't
[12] remember others. I remember there was the four
[13] services that I mentioned: police radio, FM, TV and
[14] cellular.
[15] Q: Were you collecting these data for your own
[16] purposes or at the request of clients?
[17] A: The bulk of the data was at my own expense
[18] and for my own purposes.
[19] Q: So there would not be any proprietary
[20] problem about the data if you had it, correct?
[21] A: If I had it - well, I don't know.
[22] MR. DEUTSCH: If your question more
[23] specifically is, are there third parties who have a
[24] proprietary interest -

Page 1

[1] A: 30 years ago.
[2] Q: Are those data available?
[3] A: We've been through this, sir.
[4] Q: I apologize if I've forgotten your answer.
[5] A: The answer was that that was when I was in
[6] the employ of the George C. Davis consulting firm,
[7] which has ceased to exist many years ago, so I would
[8] have no idea. And I certainly have no -
[9] MR. DEUTSCH: Just answer his questions, no
[10] dissertations here. We're paying by the word.
[11] Q: Have you done any testing to validate the
[12] accuracy of the propagation map that we've marked as
[13] Biby 7?
[14] A: Postprediction measurements, is that what
[15] you're asking?
[16] Q: Right.
[17] A: The answer is no.
[18] Q: In your expert report you state at Page 10,
[19] and I'll try to get this word for word -
[20] MR. DEUTSCH: Let's turn to Page 10.
[21] Q: In the middle of Page 10, Expert Report,
[22] Biby Exhibit 4, "That is to say, station coverage is
[23] limited more by interference from other stations
[24] than by a lack of signal strength." That is your

Page 100

Page 102

(1) statement, correct, Mr. Bibby?
(2) A: That's correct.
(3) Q: Would it be fair to say that to the extent
(4) that interference may be a problem, it is not a
(5) problem involving a lack of signal strength?
(6) A: I don't understand that question.
(7) Q: Let me put it this way: Is it possible to
(8) have a signal of more than Grade B intensity from a
(9) particular station and nevertheless to have a
(10) problem with interference from a different station?
(11) A: It is.
(12) Q: Is it your opinion that the effective
(13) coverage that TV stations enjoy is more limited by
(14) the problem of interference from other stations than
(15) it is by a lack of dBu in the air from the station
(16) in question?
(17) MR. DEUTSCH: I object, and I'm going to
(18) leave it at that.
(19) THE WITNESS: The witness now answers?
(20) MR. DEUTSCH: The witness now answers, if
(21) the witness can answer.
(22) A: It is my opinion that particularly the VHF
(23) television spectrum in the United States has long
(24) been principally interference limited, not noise

(1) A: Grade A - I'm sorry, Grade A. Okay, Grade
(2) B is probably -
(3) BY MR. DEUTSCH: You weren't asked about Grade
(4) B.
(5) THE WITNESS: You're right.
(6) Q: So did I understand you to say that in some
(7) instances a significant interference problem could
(8) arise not far outside the Grade A predicted contour?
(9) MR. DEUTSCH: I believe he said "within."
(10) THE WITNESS: No, I said "near." I did not
(11) say "within."
(12) A: I noted that in a discussion I read
(13) recently of -
(14) MR. DEUTSCH: Just answer his question.
(15) A: The answer is, close to the Grade A.
(16) Q: So in the typical case, somewhat more than
(17) 30 miles away from the tower?
(18) A: It is my understanding that there are cases
(19) where somewhat more than 30 miles from the tower,
(20) interference from other stations does occur.
(21) Q: You also in your report, at the bottom of
(22) Page 10 and top of Page 11, refer to noise levels in
(23) urban environments; is that correct?
(24) A: That's correct.

Page 101

Page 103

(1) limited, "noise limited" meaning lack of signal.
(2) Q: And by "lack of signal" you mean lack of
(3) signal as one could measure it in dBu's?
(4) A: Correct.
(5) Q: At how many miles away from a typical low
(6) VHF station would you expect the problem of
(7) interference from other stations to become a
(8) limiting factor?
(9) A: That's a very difficult question because of
(10) the great differences among station to station. I
(11) believe that there are cases where there is
(12) interference from other stations close to the Grade
(13) A contour, much less the Grade B contour. I really
(14) can't give a general response to your question.
(15) Q: Is the Grade A contour for most stations at
(16) least 30 miles away from the tower?
(17) A: I'm willing to accept your premise that it
(18) is.
(19) MR. DEUTSCH: I think this is a question,
(20) not a request that you make an assumption.
(21) Q: This is a question. In the real world -
(22) A: 30 miles is on the order of a typical VHF
(23) Grade B contour, maybe a little more.
(24) MR. DEUTSCH: Grade A?

(1) Q: Does the noise level that exists in a
(2) particular environment affect the number of dBu's in
(3) the air above a particular location's roof?
(4) A: No.
(5) Q: Is it fair to say that your point about
(6) noise at the bottom of Page 10 and top of Page 11
(7) has to do with ultimate picture quality and not with
(8) signal intensity?
(9) A: Correct.
(10) Q: Continuing on Page 11 of your report, Bibby
(11) 4, the bottom of the carry-over paragraph, there's a
(12) reference to "the difficult receiving locations
(13) being considered." What do you mean by "the
(14) difficult receiving locations being considered"?
(15) A: That last 3 percent that we've been
(16) discussing.
(17) Q: Do you mean the locations of the particular
(18) households that are subscribing to PrimeTime 24?
(19) A: No. As I've testified, I don't know those
(20) locations. I have no knowledge of them.
(21) Q: You do not know whether or not PrimeTime 24
(22) subscribers are located in better-than-average or
(23) worse-than-average locations in terms of their
(24) reception of local network stations; is that

Page 105

[1] correct?
[2] A: I don't know.
[3] Q: Could you explain to me the reasoning
[4] behind use of 97th percentiles for location and time
[5] in this matter.
[6] A: Did you mention time in there, by the way?
[7] Q: I did.
[8] A: I use 50 percentile on the time.
[9] Q: In the map that you submitted, Biby 7, you
[10] used 50 percentile for time, correct?
[11] A: Correct.
[12] Q: In your report you recommend using 97
[13] percentile for both location and time, do you not?
[14] MR. DEUTSCH: Can you give him the page
[15] you're reading from.
[16] Q: Well, for example, at the middle of Page 8,
[17] there's a reference to ensuring "97 percent time
[18] availability." Do you see that, Mr. Bibby?
[19] A: Yes.
[20] Q: In your report, Biby Exhibit 4, were you
[21] not recommending the use of both 97 percent location
[22] and 97 percent time probabilities?
[23] A: The intent there is to point out that
[24] Mr. Cohen ignored some important variables. If one

[1] point where I'm not a strong statistician, is it
[2] really the 97 or the 98 1/2 -
[3] Q: You are not -
[4] A: - to get to where you're at least 50
[5] percent certain that that last 3 people out of 100
[6] have service, that's what we're talking about.
[7] Q: Let me just make sure I understood your
[8] last answer. Suppose I wanted to know all of the
[9] points in which at least half the locations are
[10] getting a signal of Grade B intensity, that is, are
[11] predicted to get a signal of at least Grade B
[12] intensity; a 50 percent location factor is the right
[13] one to use in that event, correct?
[14] A: Yes.
[15] Q: In your expert report you've criticized,
[16] have you not, the methods that Mr. Cohen has used to
[17] determine the extent to which PrimeTime 24's
[18] subscribers are "unserved households," as defined in
[19] Section 119, correct?
[20] A: Your use of the word "criticized" gives me
[21] a little problem, but I point out things that
[22] Mr. Cohen did not consider.
[23] Q: Previously we talked about your views about
[24] a potentially superior way to measure the signal

Page 106

[1] makes adjustments for the location variability, in
[2] general the distances to which we have the 97
[3] percent probability of service viewing only location
[4] are close enough that frankly I'm not going to argue
[5] about the time variability. Time variability
[6] decreases as one comes closer to the source. So
[7] frankly I'm giving Mr. Cohen the benefit of the
[8] doubt there.
[9] Q: If you had done Biby Exhibit 7 with a 97
[10] percent location and a 97 percent time factor, would
[11] the map have changed materially?
[12] A: I don't believe they would have.
[13] Q: Going back to my question, could you
[14] explain to me the logic behind use of a 97 percent
[15] location probability.
[16] A: We have a population of 100 percent,
[17] whatever number of viewers that might be, television
[18] households, viewers. If we want to ensure that the
[19] average household probably could get reception, then
[20] we talk about the 50 percentile. So then we want to
[21] talk about - again, here's where I'm not a
[22] statistician, but that if we want to have reasonable
[23] confidence that that last 3 percent have service,
[24] then we have to talk about the 97 percentile. Now a

Page 107

[1] intensity in the air above particular households.
[2] Do you recall that?
[3] A: Your statement is not correct. What I said
[4] was after having expressed my sympathy for the
[5] difficult task that Mr. Cohen's contractors were
[6] faced with, I was able to conceptualize only one
[7] method that might be appropriate.
[8] Q: Let's talk about some of the other things
[9] that Mr. Cohen did, so I understand the scope of
[10] your agreement or disagreement with him. In Miami,
[11] for example, Mr. Cohen says that he performed tests
[12] near the locations of randomly selected PrimeTime 24
[13] subscribers. Do you recall that?
[14] A: That's my understanding, yes.
[15] Q: You have a criticism of his use of random
[16] selection as a method of deciding which subscribers
[17] to look at?
[18] A: A "criticism" is a harsh word here. I had
[19] a question as to what did Mr. Cohen mean by
[20] "random." There are numerous methods of
[21] "randomly," with quote marks around the word
[22] "randomly," selecting a sample out of a population.
[23] Q: Let me ask you to accept the following as a
[24] description of what was done. A list of certainly

Page 108

[1] many hundreds, perhaps thousand of PrimeTime 24
[2] subscribers over a period of time, was collected.
[3] Do you follow me?
[4] A: No.
[5] Q: PrimeTime 24 is required to send lists
[6] every month to networks of new subscribers -
[7] MR. DEUTSCH: Mr. Olson, maybe I can save
[8] you time by stating that this witness is not
[9] proffered as an expert statistician, and therefore
[10] is unlikely to be able to end up, when you finish
[11] putting together this elaborate hypothetical,
[12] unlikely to be able to offer you a professional
[13] opinion about the validity of the statistical
[14] technique.
[15] MR. OLSON: If so, I'd just like to find
[16] out whether he has any opinions at all.
[17] Q: Let's just say this: A list of PrimeTime
[18] 24 subscribers is developed.
[19] MR. DEUTSCH: Are you going to specify how
[20] it is developed or leave it unknown to the witness?
[21] Q: I'll ask you to accept that there's a list
[22] of all of the new PrimeTime 24 subscribers in Dade
[23] and Broward Counties in Florida who had signed up
[24] over some period of time, okay? Do you follow that?

Page 109

[1] A: I understand what you're saying.
[2] MR. DEUTSCH: That includes all
[3] distributors?
[4] MR. OLSON: From all distributors, yes.
[5] MR. DEUTSCH: And does that exclude people
[6] who were - those in that group who were turned off
[7] by the end of the particular period of time?
[8] MR. OLSON: No. It's a list of people
[9] signed up over a certain period of time.
[10] MR. DEUTSCH: So that would include people
[11] who were turned off quickly.
[12] Q: Okay. Let me ask you to assume the truth
[13] of the following: That a list was created of
[14] subscribers who signed up for PrimeTime 24 during
[15] May of 1996, okay?
[16] A: A list was compiled.
[17] Q: Right, of new PrimeTime 24 subscribers from
[18] May of 1996, and that there were 800 subscribers on
[19] that list. Do you follow me so far?
[20] A: I understand your words.
[21] Q: And that starting at a randomly chosen
[22] number between one and eight, every eighth
[23] subscriber was chosen, for a total of 100. Do you
[24] follow that?

Page 110

[1] A: I think I understand your words.
[2] Q: As a method of selecting subscribers from
[3] among those 800, do you have any problem with that
[4] method of selection?
[5] A: Do I have a problem?
[6] Q: Do you have any criticism of that method of
[7] selecting 100 subscribers from among those 800?
[8] MR. DEUTSCH: I'm going to object, because
[9] the witness is not a statistician and therefore has
[10] no basis for giving you an opinion.
[11] MR. OLSON: Thank you for your coaching.
[12] Mr. Deutsch.
[13] Q: Do you have any criticism of that method,
[14] Mr. Biby?
[15] A: The method has not been discussed, the
[16] method of selection has not been discussed.
[17] Q: The method of selection I just told you;
[18] there are 800 and you choose 100.
[19] A: You have used the words "selected list."
[20] Q: I'm talking about from within the list of
[21] 800. Assume the universe is those 800, and I'm
[22] talking about whether within those 800 you have a
[23] problem with taking every eighth subscriber in
[24] sequence, starting at a randomly chosen number.

Page 111

[1] MR. DEUTSCH: Let me object again. Do you
[2] want to tell him what the purpose of doing this is?
[3] Q: For purposes of assessing the overall
[4] characteristics of those 800 subscribers.
[5] MR. DEUTSCH: And you understand my
[6] objection, lack of witness's professional
[7] qualifications -
[8] MR. OLSON: Yes, I've heard that a number
[9] of times.
[10] MR. DEUTSCH: - being qualifications in
[11] statistics.
[12] A: Do I have a problem with the methodology
[13] you just sketched?
[14] Q: Yes.
[15] A: I have several problems with it. I'm
[16] speaking now from the perspective of logic. We're
[17] talking about logic.
[18] First of all, when you first started
[19] structuring your question, you used a phrase,
[20] something on the order of "selected list." You
[21] really did. You've talked about random choosing
[22] from a list. Simply choosing every Nth item out of
[23] a list which could have been presorted is not a
[24] random selection in my view.

Page 112

[1] Q: If it's in alphabetical order?
[2] A: Well, I'm going back to your use of the
[3] word "selected."
[4] Q: I'm asking you, within a group of 800
[5] subscribers that are put in alphabetical order, do
[6] you have any criticism of selecting 100 of those
[7] subscribers to be tested, by going in jumps of
[8] eight, starting at a randomly selected number?
[9] A: I'll try another way.
[10] MR. DEUTSCH: For the purposes of the
[11] selection, what -
[12] MR. OLSON: The same purpose I previously
[13] described.
[14] MR. DEUTSCH: Fine. I just want to be sure
[15] we're sucking with that.
[16] A: I have repeatedly said, I am not a
[17] professional statistician. My gut feel, however you
[18] want to phrase it, my innermost intuition, is yes, I
[19] have some problems with the methodology you just
[20] outlined.
[21] Q: Okay.
[22] A: And I have learned to pay attention to gut
[23] feel.
[24] Q: Suppose that instead of randomly choosing

[1] A: I can be fairly definite on the most recent
[2] case in which a record was to become part of an FCC
[3] proceeding - that I can respond to, and again, it's
[4] a guess, but I think a couple of years ago.
[5] Q: What was that about?
[6] A: I'll be a little loose in my language here,
[7] because it was a very complex case, but the
[8] universal license revocation proceeding, not
[9] proceeding, but tumult, against - I mention it in
[10] one of my filings, but it was a license - the aim
[11] of the proceeding was to ultimately remove the
[12] licenses from a large corporation, and I'm sorry I
[13] did not mention that case here.
[14] Q: Was that television, radio, cellular or
[15] something else?
[16] A: Cellular.
[17] Q: Prior to that, the most recent time that
[18] you testified before some part of the FCC?
[19] A: I'm having a problem here, because in the
[20] engineering practice, being in this loop of
[21] professional consulting engineers and a member of
[22] the organization, one often, commonly, frequently
[23] either files comments as an individual practitioner
[24] in proceedings at the FCC or is signator to a

Page 113

[1] locations, suppose that an attorney for the
[2] broadcasters had supplied Mr. Cohen with a list that
[3] had been hand-selected by the attorneys for the
[4] broadcasters. Would you have a problem with that as
[5] the basis for a sample from which one would draw
[6] conclusions about the entire universe of 800?
[7] A: Absolutely, yes.
[8] Q: Why is that?
[9] A: What you outlined offers a world of
[10] possibility of manipulating the list.
[11] Q: For the attorneys for a party to provide a
[12] list to the expert provides a world of possibilities
[13] for manipulation; is that correct?
[14] A: Parties unknown back there, yes; the
[15] possibility exists. I'm not attempting to insult
[16] your honor as an attorney.
[17] Q: When did you most recently testify before
[18] the Federal Communications Commission?
[19] A: Before the Federal Communications
[20] Commission, the body of seven commissioners, I don't
[21] believe I've ever testified before the
[22] Communications Commission.
[23] Q: Before any component of the Federal
[24] Communications Commission.

Page 11

[1] committee report, but -
[2] MR. DEUTSCH: Do you mean to include that
[3] in your question?
[4] MR. OLSON: At the moment I want to talk
[5] about oral testimony; you're in a room like today
[6] and you're speaking and people are listening.
[7] MR. DEUTSCH: You mean depositions.
[8] MR. OLSON: Well, any hearings,
[9] depositions, any kind of live testimony, as opposed
[10] to submitting a written document.
[11] A: There was a question of cutting it off at
[12] four years. The only FCC live oral testimony that I
[13] can think of or that went to the record at the FCC
[14] was the one that I just mentioned, and I'm sorry I'm
[15] having trouble recalling the name of that client.
[16] Q: Would that be Contel Cellular of
[17] California?
[18] A: No, that was an arbitration case.
[19] Q: But that is reported, the arbitration case
[20] is reported in the FCC record?
[21] A: No, that was an arbitration case, so it's
[22] not FCC record.
[23] Q: I'm asking you because I'm confused. In
[24] your report you provide a FCC record cite for the

Page 116

Page 115

[1] Contel Cellular case.
[2] A: You're right, there was a cite there. I'm
[3] going to have to check into the cite, because that
[4] citation may have been an artifact left over from my
[5] editing text. It may have been a citation of the
[6] case, where I can't remember the client's name.
[7] Q: Okay.
[8] MR. DEUTSCH: Don't write on the exhibits.
[9] Q: What was Contel Cellular about?
[10] A: Many of the cellular grants were through a
[11] process of negotiation. There were very few
[12] courtroom hearings. Contel, in this particular
[13] market, was the majority or operating partner,
[14] whatever phrase one wishes to use.
[15] MR. DEUTSCH: Contel Cellular of
[16] California, Inc./Sierra Arbitration is one matter,
[17] right?
[18] THE WITNESS: Oh, okay.
[19] MR. DEUTSCH: And Telephone and Data
[20] Systems, Inc., is a new matter, right?
[21] THE WITNESS: You're right. Thank you for
[22] pointing that out.
[23] A: Telephonic, TDS, was the FCC record
[24] generating oral testimony to which I was making

[1] propagation?
[2] A: Longley-Rice Plus.
[3] Q: In what other matters, if any, have you
[4] given oral testimony about either Longley-Rice or
[5] Longley-Rice Plus?
[6] A: One that immediately comes to mind is the
[7] grandfather, the cause of the telephone and data
[8] systems case.
[9] Q: And what was that grandfather?
[10] A: An application - I'm going to use the word
[11] "inherited" by TDS - had been filed some years
[12] before the case, before the argument, contesting
[13] BellSouth for coverage of Saint Tammany Parish,
[14] north of the lake. That pivoted once again on
[15] coverage issues, and I provided extensive testimony
[16] in that case.
[17] Q: Have you ever given testimony about a
[18] Longley-Rice or a Longley-Rice Plus analysis of the
[19] propagation of a television station?
[20] A: I can't recall having done so.
[21] Q: Let me go back to a topic we covered this
[22] morning but come at it in a different way.
[23] I want to ask you to make just two
[24] assumptions, which I'll just read into the record,

Page 117

Page 118

[1] reference. The Contel versus Sierra was a case
[2] where a dissident partner engaged in a legal suit to
[3] overturn the majority partner, Contel, alleging that
[4] Contel had failed to provide the coverage promised
[5] in their contract. Perfectly clear?
[6] Q: Yes. And this was the coverage of a
[7] cellular system, correct?
[8] A: Yes.
[9] Q: Have you ever given live testimony about
[10] either the use of the standard Longley-Rice model or
[11] the Longley-Rice Plus model that you developed?
[12] A: Yes. The -
[13] MR. DEUTSCH: That's the answer.
[14] Q: When did you most recently give that
[15] testimony?
[16] A: Focusing on FCC cases?
[17] Q: Anything.
[18] A: Most recently, I believe, was the Sierra
[19] Arbitration, Contel versus Sierra.
[20] Q: And that was about a Longley-Rice analysis
[21] of cellular propagation?
[22] A: That was about my analysis of coverage,
[23] yes.
[24] Q: Longley-Rice Plus analysis of cellular

[1] but they are basically Assumption No. 1 and
[2] Assumption No. 11 from Biby Exhibit 2. And to make
[3] things clear for future readers, I'll just read them
[4] into the record, and if I misstate, I'm sure you'll
[5] correct me.
[6] The first assumption is, "A particular
[7] viewer wishes to subscribe to PrimeTime 24," and the
[8] other assumption is, "The viewer answers 'no' to the
[9] following question asked over the telephone by a
[10] satellite company representative: 'Are you able to
[11] receive a good quality picture from any of the
[12] networks, ABC, NBC, CBS, PBS, or Fox with a
[13] conventional outdoor rooftop antenna?'"
[14] Do you have those two assumptions?
[15] A: Yes.
[16] Q: Based on those two assumptions, which I'll
[17] ask you to accept to be true, can you form an
[18] opinion about whether it is more likely than not
[19] that this viewer has, in the air above his or her
[20] house, a signal of at least Grade B intensity from a
[21] CBS station?
[22] A: I believe I've already answered that
[23] question. I'll answer it again. No.
[24] Q: I'm asking it in this simplified form to

Page 120

[1] make sure the record is very clear. Why is it that
[2] that information does not enable to you form a view
[3] about that question?
[4] A: I've been presented with no scientifically
[5] or engineering valid data on which, or information
[6] data, on which to have an opinion. I have no facts
[7] other than the putative fact that the person said no
[8] to a question.

[9] Q: Before arranging for Exhibit 7 to be
[10] created, had you ever previously done a Longley-Rice
[11] or Longley-Rice Plus map using a 97 percent location
[12] probability?

[13] A: I'm going to ask you to repeat it.

[14] MR. OLSON: Could you read that back
[15] please.

[16] (Question read)

[17] A: Yes.

[18] Q: Under what circumstances?

[19] A: Cases that I definitely recall are mobile
[20] radio questions, and please realize that the flow of
[21] maps and jobs that go by me and have gone by me I'm
[22] pretty confident include broadcast predictions with
[23] confidences or location variability on the order of
[24] 97 percent.

Page 121

[1] Services, which I believe is also a Virginia
[2] professional corporation. The data processing arm
[3] which was created by me, which also passed to
[4] Richard Pomeroy Biby's ownership, is CDS.
[5] Communications Data Services, which is a straight
[6] Virginia corporation.

[7] Q: And is CDS owned by Biby Engineering
[8] Services, P.C.?

[9] A: It's my understanding that it is a wholly
[10] owned subsidiary of Biby Engineering Services.

[11] Q: How many employees does Richard L. Biby
[12] CES, P.C. - how many employees does it have?

[13] A: Just me now.

[14] Q: And Biby Engineering Services, P.C., how
[15] many employees does that company have?

[16] A: I really don't know.

[17] Q: And Communications Data Services,
[18] Incorporated, roughly how many employees does that
[19] have?

[20] A: I really don't know.

[21] Q: Is it on the order of three, on the order
[22] of 100?

[23] A: The rankest of guesses, I -

[24] MR. DEUTSCH: Please don't guess.

Page 121

[1] Q: Could you describe for me the different
[2] corporate entities with which you're affiliated.

[3] MR. DEUTSCH: If any.

[4] A: I am presently -

[5] MR. DEUTSCH: Are you asking about
[6] professional societies or businesses?

[7] Q: What I mean is, I know that there is - I
[8] believe that there's a company called something like
[9] Biby Engineering, I believe there's a company called
[10] CDS. There may be other companies as well, and I
[11] just want to understand the relationship among the
[12] different entities that you, and if relevant your
[13] son, are affiliated.

[14] A: Are you asking where I have ownership
[15] interest?

[16] Q: Sure, ownership interest or other companies
[17] for which you provide services.

[18] A: Ownership interest is limited strictly to
[19] Richard L. Biby Communications Engineering Services,
[20] P.C., a Virginia professional corporation of which I
[21] am the sole owner. My son Richard Pomeroy Biby has
[22] assumed the burdens of carrying on the family
[23] tradition and for business and legal reasons chose
[24] to create a new entity called Biby Engineering

Page 122

[1] Q: What is your best estimate of how many
[2] employees that company has?

[3] MR. DEUTSCH: You can give a best estimate
[4] if you can give a meaningful one. If it's between
[5] zero and a million, it's not a meaningful answer.

[6] A: Somewhere in the twenties.

[7] Q: Do you have any reason to doubt that the
[8] engineers working at Jules Cohen's request collected
[9] the data that they say they collected in the way
[10] that they said they collected it?

[11] MR. DEUTSCH: Objection. There's no
[12] foundation laid for the witness having any
[13] knowledge, any basis, for either believing they did
[14] or did not. You might as well ask him -

[15] MR. OLSON: Enough coaching.

[16] Q: You may answer the question.

[17] MR. DEUTSCH: No, the question is
[18] fundamentally unfair.

[19] MR. OLSON: I asked if he had any basis.
[20] If he doesn't, he can tell me that, Steve. You
[21] don't need to give him the entire answer in advance.

[22] A: Well, Steve interrupted, and the answer
[23] that I would have given is no, I have no such basis.
[24] I don't even know who they were; therefore, I have

Page 124

[1] no idea of their competence, their qualifications,
[2] or the methods they actually used. I simply have no
[3] information.
[4] Q: Have you been asked to do any additional
[5] work by the attorneys for PrimeTime 24 beyond what
[6] you've done already?
[7] A: No.
[8] Q: And whether or not you've been asked to do
[9] so, do you have any plans to do any additional work
[10] in connection with this matter?
[11] A: In conjunction with this matter?
[12] MR. DEUTSCH: Other than, for example,
[13] testifying at a trial.
[14] MR. OLSON: Right.
[15] A: No.
[16] Q: Have you ever done any other work for
[17] PrimeTime 24?
[18] A: No.
[19] Q: Have you ever done any work for Direct TV?
[20] A: No.
[21] Q: For any other satellite company?
[22] A: You mean satellite TV?
[23] Q: I can give you some more names. PrimeStar?
[24] A: No.

Page 125

[1] Q: EcoStar?
[2] A: No.
[3] Q: DISH Network?
[4] A: No.
[5] Q: Ever done any work relating to the C-band
[6] satellite industry?
[7] A: No.
[8] Q: Nothing for Netlink?
[9] A: No.
[10] Q: Have you ever been involved in another case
[11] in which Jules Cohen was also an expert?
[12] A: I can't recall any offhand, but Jules and I
[13] have been in the same environment for so long, the
[14] answer is I probably have.
[15] MR. OLSON: If I can just have two minutes
[16] to collect my thoughts.
[17] (Brief recess taken)
[18] MR. OLSON: I have no further questions.
[19] MR. DEUTSCH: I have a few.
[20] CROSS EXAMINATION
[21] BY MR. DEUTSCH:
[22] Q: I want to start with the comment you made
[23] that the VHF spectrum in particular is interference
[24] limited, not noise limited, okay?

Page 125

[1] A: Yes.
[2] Q: Let me see if I can put that in other
[3] words, and see if you agree that I'm stating what
[4] you mean correctly.
[5] If I want to increase the service of VHF
[6] stations generally in the United States, increase
[7] the number of people who can observe them, if there
[8] was only one VHF station in the U.S., I could simply
[9] crank up its power indefinitely, with some problems
[10] of course that, you know, there's limitations to the
[11] power you can put in an antenna and things of that
[12] sort, but conceptually what I'm asking is one can
[13] get increased coverage by cranking up power if
[14] there's one station.
[15] A: The answer is yes, one can increase
[16] coverage by cranking up power if other factors
[17] remain the same, same antenna, same height, et
[18] cetera, yes.
[19] Q: If there was no such thing as interference,
[20] perhaps because there were so many frequency
[21] channels available that you could only use each one
[22] once and you could space them so there was no
[23] cross-channeling interference -
[24] A: That is correct.

Page 127

[1] Q: - in that case you could cover the whole
[2] U.S. by turning up the powers of each station
[3] enough, assigning each station to a different
[4] frequency.
[5] A: You could provide coverage to the entire
[6] U.S. if you had enough channels such that you didn't
[7] have to reuse any of the channels, yes.
[8] Q: Now, in the real United States, one talks
[9] about interference limited in the following sense,
[10] am I correct: That if you attempt to increase the
[11] coverage area of a station by cranking up its power,
[12] you will find all kinds of people who depend upon
[13] other stations raising their hands and saying, "Now
[14] we're getting interference from that station you're
[15] cranking the power up on."
[16] A: In the United States as we now know it,
[17] there are numerous reuses of the 12 channels -
[18] which we're limiting this discussion to VHF - there
[19] are only 12 channels available, there are many
[20] hundreds of television stations sharing the use of
[21] those 12 television channels, so that as a general
[22] correct statement, if you crank up the power of a
[23] given station, you're going to create additional new
[24] interference to someone else.

Page 128

[1] Q: Is that what you mean when you say
[2] "coverage is interference limited and not noise
[3] limited"?
[4] A: That is precisely what I mean.
[5] Q: Therefore, is it correct and fair to say
[6] that your statement that it is "interference limited
[7] and not noise limited" is not a statement as to how
[8] many people numerically with the current allocation
[9] can't receive because of noise as opposed to can't
[10] receive because of interference?
[11] A: You're going to have to say that again
[12] please.
[13] Q: You've told me that what I said before was
[14] a correct explanation of what you meant by
[15] "interference limited."
[16] A: Yes.
[17] Q: Now I'm asking you whether you intended
[18] your statement about interference limited as opposed
[19] to noise limited to be a comment upon or suggestion
[20] that more households under the current allocation
[21] system report that they can't watch a station
[22] because of interference, as opposed to they can't
[23] watch a station because of noise.
[24] MR. OLSON: Objection to the form.

Page 129

[1] A: I'm having a problem with what you're
[2] asking.
[3] Q: Let us take the family of people who would
[4] like to but do not get a given station. Was your
[5] comment about interference limitation rather than
[6] noise limitation a comment about the likelihood that
[7] the person I have posited fails to get the channel
[8] he wants because of interference as opposed to
[9] noise?
[10] A: I believe my answer to that question is
[11] yes, if I understand the question.
[12] Q: Well then, I think you don't understand the
[13] question.
[14] The system is interference limited in that
[15] you can't increase station power, because doing so
[16] would generate additional unacceptable interference,
[17] right?
[18] A: As defined by the FCC spectrum utilization
[19] parameters, yes.
[20] Q: Do you also understand that there are many
[21] viewers who cannot receive a given station because
[22] of weak signal, even though they have no
[23] interference?
[24] A: Absolutely correct, yes.

Page 130

[1] Q: Now, you were asked earlier about your own
[2] experience signing up for cable and having an old
[3] rooftop antenna left over -
[4] A: Yes.
[5] Q: - that you hadn't used in a while.
[6] A: Correct, that was still on the roof.
[7] Q: If you today were asked, "Can you receive
[8] an over-the-air picture of acceptable quality?"
[9] would you have a basis for - at your household -
[10] would you have a basis for answering that question
[11] based upon anything you remember from your
[12] experience when that antenna was connected?
[13] A: Yes. Since, to my knowledge, nothing of
[14] significant has changed about the transmission
[15] facilities at the stations that I had difficulty
[16] receiving a viewable picture, I have no reason to
[17] believe that that's changed.
[18] Q: So based upon that, do you agree that
[19] people who no longer have an operative rooftop
[20] antenna may nevertheless be able to give meaningful
[21] information about their ability to receive a local
[22] affiliate over the air?
[23] MR. OLSON: Objection to the form.
[24] MR. DEUTSCH: Can I hear it back.

Page 131

[1] (Question read)
[2] A: Could I get a direct quote of my next-door
[3] neighbor, "Dick, that's why we signed up for cable"?
[4] Q: To put it directly in a way that that is
[5] quotable and that people then won't need to
[6] understand your inferences from stories, can you
[7] tell me yes or no.
[8] A: The answer is yes, it is reasonable to
[9] assume that based on earlier experience attempting
[10] to get television signals, they still have a basis
[11] for assuming that they couldn't today.
[12] Q: Now I'd like to go back to Exhibits 2 and
[13] 3, the sets of assumptions that you were given on
[14] the basis of which you were asked to express certain
[15] engineering opinions or state whether or not you
[16] could express engineer opinions, okay?
[17] A: Yes.
[18] Q: I'd like to add two further assumptions.
[19] First of all, I'd like you to add the assumption
[20] that the particular viewer who is referenced in
[21] Assumption 1 agrees to pay from \$5 to \$7 per month
[22] to subscribe to PrimeTime 24 and get at his TV set a
[23] signal or signals from a distant network affiliate;
[24] that's the first assumption, okay?

Page 132

[1] A: Yes.
[2] Q: And I'd like you to assume, second, that
[3] there is a correlation between the signal strength
[4] as measured in the air by an appropriate measurement
[5] technique and the quality of the picture received by
[6] an antenna at the location of the measurement, okay?
[7] A: Okay.
[8] MR. OLSON: Objection to the form of the
[9] question.
[10] MR. DEUTSCH: Well, I simply asked the
[11] witness to make two assumptions.
[12] MR. OLSON: But the second assumption is
[13] not remotely clear, because you haven't specified
[14] the form of, the type of receiving equipment,
[15] whether standard properly functioning as opposed to
[16] the homeowner's own.
[17] Q: Do you understand what I'm asking you to
[18] assume?
[19] A: I'll tell you what I understood.
[20] Q: Yes, that's what I'd like you to do.
[21] A: Assumption No. 2, that you asked me to
[22] accept, is that there is a correlation between
[23] signal strength as measured in decibels relative to
[24] a microvolt at the antenna location, wherever that

Page 133

[1] may be, and picture quality.
[2] Q: That is correct.
[3] A: And my answer to that is yes, there is. It
[4] is reasonable to assume that there is a correlation
[5] there.
[6] Q: So beyond making the assumption, you're
[7] actually giving the testimony that there is a
[8] correlation?
[9] A: Yes.
[10] Q: Now, let me also ask you if you can
[11] address, not the question of whether you as an
[12] engineering expert can give an engineering-based
[13] opinion, but rather whether or not a business person
[14] making a judgment about providing service can draw
[15] an inference, okay?
[16] A: We're still sticking with the same two
[17] assumptions, a willingness to pay in order to
[18] receive -
[19] Q: Yes.
[20] A: - network services. I'm a little hazy
[21] here as to what the connection with the business
[22] person is.
[23] Q: Well, I'm asking you to - let me take that
[24] off the table and put it to you this way: You were

Page 134

[1] asked earlier by Mr. Olson, if on the basis of a
[2] number of assumptions, you as an engineering
[3] professional could give certain testimony, certain
[4] opinions that followed from these assumptions. Do
[5] you recollect that?
[6] A: Yes.
[7] Q: I'm asking you now to think not about
[8] whether you necessarily as an engineering
[9] professional can give an engineering opinion, but
[10] whether a business person asked to make a decision
[11] about whether to provide service or not could draw
[12] an inference. Do you understand the distinction
[13] between the two?
[14] A: I do, and I believe I have heard - I'm
[15] going to use the term "technical lay people" - talk
[16] in terms of "Well, the signal is weak at my house,"
[17] and that sort of terminology, and I think that makes
[18] my answer to your question yes.
[19] Q: In any event, making the additional
[20] assumptions I've asked you to make, could PrimeTime
[21] 24 - based upon the viewer response provided in the
[22] final assumption offered by Mr. Olson, could
[23] PrimeTime 24 draw an inference, based upon the
[24] viewer report of picture quality, as to signal

Page 135

[1] strength, and could it offer service based upon that
[2] inference?
[3] MR. OLSON: Objection to the form of the
[4] question.
[5] THE WITNESS: You're just objecting. I can
[6] answer?
[7] MR. OLSON: You can answer.
[8] A: I believe that the furthest we can take it,
[9] and I'm trying to address the entire gamut of why we
[10] would be at Point 11 -
[11] Q: Well, assume, if you would, additionally
[12] that -
[13] MR. OLSON: Let him finish his answer.
[14] Q: Assume additionally that no test has been
[15] done at the household to make any definitive
[16] determination on an engineering basis of the
[17] signal.
[18] A: A strong possibility would exist that the
[19] strength of the signal was deficient, a strong
[20] possibility.
[21] Q: If you have no engineering test at the
[22] household, so that the information you have is just
[23] the questionnaire response, then understanding that
[24] you can draw no definitive engineering opinion,

Page 136

[1] could one nevertheless make a business judgment to
[2] provide that service?

[3] MR. OLSON: Objection to the form.

[4] THE WITNESS: The witness can go ahead and
[5] answer, though?

[6] A: Given an affirmative response -

[7] Q: Given an affirmative response to the
[8] question on Exhibits 2 or 3 - or rather, given a
[9] negative, assuming the answer says "cannot" get a
[10] picture, yes?

[11] A: Right, if I cannot. There is a very strong
[12] basis, in my opinion, for accepting pretty much the
[13] statement that there is a problem with reception.
[14] Within the reasons conceivable for that problem in
[15] reception is a strong possibility of a weak signal.

[16] Q: Now, if one were to measure at that
[17] location and measure a strong signal, then I take it
[18] you would at that point believe that the signal
[19] measurement was more probative of the signal
[20] strength, if the measurement was done properly -
[21] and I don't want to get into how, just at a
[22] conceptual level - you would agree that a properly
[23] done signal measurement was more probative of signal
[24] strength than an assessment by the viewer of picture

[1] synchronize, the sound may go, any number of things.

[2] This is called "multipath reception."

[3] Now, that's the trouble I have, that to
[4] take a broad bandwidth measurement without
[5] addressing the variability within the bandwidth and
[6] a lot of complicated issues there, signal strength
[7] alone is not, in my very strongly held opinion, a
[8] sufficient indicator of the probability of good
[9] reception. If you want a neat term, it's "coherence
[10] bandwidth."

[11] MR. DEUTSCH: You may do redirect.

[12] REDIRECT EXAMINATION

[13] BY MR. OLSON:

[14] Q: You mentioned a technical layperson. Did
[15] you mean a layperson who is not an engineer but has
[16] more familiarity than the average person with
[17] engineering?

[18] A: No, I meant Mr. John Q. Public on the
[19] street, a person with no specific knowledge of the
[20] technical side of this.

[21] Q: You mentioned your belief that there is a
[22] correlation between signal strength and picture
[23] quality, correct?

[24] A: Again?

Page 13

Page 137

[1] quality from which an inference was drawn; is that
[2] right?

[3] A: What does the word "probative" mean?

[4] Q: More persuasive, more likely to be
[5] correct.

[6] A: I have a problem with what we're discussing
[7] here.

[8] A signal strength measurement "properly" -
[9] and I have quote marks around the word "properly" -
[10] performed in this context, looks at a broad
[11] bandwidth, essentially the width of the television
[12] channel, which is 6 megahertz. Now, in the sort of
[13] areas we're discussing, that is, residential
[14] neighborhoods, you know, in communities probably
[15] with trees and other objects that scatter the signal
[16] in the immediate neighborhood, the problem is that
[17] the energy being received over the entire bandwidth
[18] does not represent at any given point in time the
[19] energy being received at the carrier wave
[20] frequency.

[21] Now, if the carrier wave energy is
[22] insufficient to allow the proper demodulation of the
[23] television signal, the picture for all practical
[24] purposes may not even exist. The set may fail to

Page 13

[1] Q: Did you not say that it's your view that
[2] there is a correlation between signal strength and
[3] picture quality?

[4] A: There is a correlation between signal
[5] strength and picture quality, yes.

[6] Q: Is that true no matter what antenna,
[7] transmission line, and television one is talking
[8] about, or is that true if one has a properly
[9] functioning antenna, transmission line, and
[10] television set?

[11] A: My fundamental statement is yes, there is a
[12] correlation between picture quality and signal
[13] strength within limits.

[14] Q: Well, if you have an antenna system whose
[15] characteristics you don't know, whose loss along the
[16] transmission line you don't know, if you have a
[17] television set whose quality you don't know, can you
[18] be confident that there will be a correlation
[19] between the signal strength in the air and the
[20] picture quality on the television set?

[21] A: Without knowing more, no.

[22] Q: What do you know about the characteristics
[23] of the antennas and transmission lines and
[24] television sets of PrimeTime 24 subscribers?

Page 140

Page 140

[1] A: Nothing.

[2] Q: Now, I want to ask you to go back to Bibby
[3] Exhibit 2 for a moment. To make sure that we all
[4] understand the assumptions, you understand that we
[5] have a viewer who has decided that he or she would
[6] like to subscribe to PrimeTime 24, correct?

[7] A: Yes.

[8] Q: And that there are three ways in which
[9] PrimeTime 24 offers this person something different
[10] than they get over the air; namely, they can watch
[11] network programs at different times, they can watch
[12] different sports programs, and they can watch
[13] different syndicated programs than they would get
[14] over the air from their local station. Do you
[15] follow those?

[16] A: Those are three of the assumptions you
[17] asked me to accept, and I've accepted.

[18] Q: Is it not correct - without even asking
[19] you to accept it - is it not correct that if one
[20] has PrimeTime 24, one can watch ABC, CBS, and Fox
[21] and NBC programming without the need to purchase or
[22] install or maintain an over-the-air antenna?

[23] A: I've been told that that's so, yes.

[24] Q: There is some cost and effort involved in

[1] A: Yes.

[2] Q: You understand that you do not know what
[3] criteria the viewer is using in evaluating whether a
[4] particular television picture is "of good quality."

[5] A: We're talking assumptions. I'm willing to
[6] accept your assumption.

[7] Q: And you do not know whether or not this
[8] viewer is willing to say that their picture is "not
[9] of good quality" in order to get the benefits that
[10] PrimeTime 24 offers.

[11] MR. DEUTSCH: That's again an assumption.

[12] MR. OLSON: Yes.

[13] Q: I'm asking you to accept that.

[14] A: Okay.

[15] Q: Based on those assumptions, is the viewer's
[16] answer "no" to the question, "Are you able to
[17] receive a good quality picture from any of the
[18] networks, ABC, NBC, CBS, PBS, or Fox with a
[19] conventional outdoor rooftop antenna?", sufficient
[20] to enable you to conclude, as an engineer, that it
[21] is more likely than not that this household does not
[22] have a signal of Grade B intensity present in the
[23] air above their rooftop from a local CBS station?

[24] MR. DEUTSCH: Objection. You can go ahead

Page 141

Page 143

[1] purchasing, installing and maintaining an
[2] over-the-air antenna, is there not?

[3] A: Yes.

[4] Q: I'm asking you to accept that you do not
[5] have any idea whether the particular person on the
[6] other end of the telephone has a rooftop antenna,
[7] rabbit-ear antenna, or any other type of antenna,
[8] correct?

[9] MR. DEUTSCH: Excuse me. Can I have that
[10] back.

[11] (Question read)

[12] Q: Or any other type of over-the-air antenna.

[13] MR. DEUTSCH: You're pointing him to

[14] Assumption 6 on your list?

[15] MR. OLSON: Correct.

[16] Q: So, for example, they may simply have a
[17] television set that is hooked up to their local
[18] cable station. Do you understand?

[19] A: These are assumptions.

[20] Q: Yes. And if they unplug their cable, then
[21] they simply have a television set that has no
[22] antenna - they may have a television set that has
[23] no over-the-air antenna at all. Do you understand
[24] that?

[1] and answer if you can.

[2] A: I'm sorry, but we've been through this
[3] similar question so many times, and I repeat, I've
[4] been presented with no data on which to base an
[5] opinion one way or the other. If we're speaking of
[6] high school Logic 101, I think the Logic 101 answer
[7] to your question is, I don't know.

[8] Q: Did you and Mr. Deutsch discuss the series
[9] of questions he just asked you during the lunch
[10] hour?

[11] A: We did not.

[12] MR. DEUTSCH: Off the record.

[13] (Discussion off the record)

[14] MR. OLSON: Back on the record.

[15] Q: So a viewer could have a poor quality
[16] picture because they are using only a rabbit-ear
[17] antenna instead of a rooftop antenna, correct?

[18] A: Are you saying that substituting the
[19] rooftop antenna for rabbit ears is some sort of
[20] panacea? The answer to that question is no.

[21] Q: I'm suggesting that there may be people who
[22] could get a good picture with a rooftop antenna but
[23] are not getting a good picture with their rabbit
[24] ears, correct?

Page 144

[1] A: That is correct.
[2] Q: And there may be people who have rooftop
[3] antennas that would give them pictures that they
[4] would consider to be acceptable if the rooftop
[5] antennas were properly functioning, but their
[6] rooftop antennas are not properly functioning,
[7] right?
[8] A: Yes, there may be such people.
[9] Q: There may be people who have standards for
[10] quality of television pictures that are not based on
[11] factors that are probative of strength of signal,
[12] correct?
[13] A: There may be people whose standards,
[14] personal standards for judging picture quality, are
[15] not correlated to signal strength, within ranges,
[16] yes.
[17] Q: There may be people who see some ghosting
[18] on their screen and who consider that objectionable,
[19] even though they have a signal above Grade B above
[20] their rooftop, correct?
[21] A: Yes, we sort of touched on this. Ghosting
[22] is another name for what I called multipath.
[23] MR. DEUTSCH: We'd be out of here quicker
[24] if you would just answer his questions.

Page 145

[1] Q: There may be people who have a picture that
[2] they describe as being not of good quality because
[3] they have a rooftop antenna that is not pointed
[4] towards the station where they would have a better
[5] picture if the rooftop antenna were pointed towards
[6] the station, correct?
[7] A: Yes.
[8] Q: There may be people who simply answer the
[9] question "no" because that's the way you get
[10] PrimeTime 24, correct?
[11] A: There may be, correct.
[12] Q: And you don't know how many people there
[13] are in that category, correct?
[14] A: I do not know.
[15] Q: Do you know whether there are any penalties
[16] associated with answering that question one way or
[17] the other?
[18] A: I don't know.
[19] MR. OLSON: That's it.
[20] MR. DEUTSCH: That's it.
[21] (Whereupon the deposition was
[22] concluded at 3:00 p.m.)
[23]
[24]

Page 146

CERTIFICATE

[1] I, Richard L. Biby, do hereby certify that I
[2] have read the foregoing transcript of my testimony,
[3] and further certify under the pains and penalties of
[4] perjury that said transcript (with/without)
[5] suggested corrections is a true and accurate record
[6] of said testimony.
[7] Dated at __, this day of ,
[8] 1998.
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Page 147

[1] COMMONWEALTH OF MASSACHUSETTS)
[2] SUFFOLK, SS.)
[3] I, Susan M. Marty, Certified Shorthand Reporter
[4] and Notary Public in and for the Commonwealth of
[5] Massachusetts, do hereby certify that there came
[6] before me on the 10th day of June, 1998, at 10:10
[7] a.m., the person hereinbefore named, who was by me
[8] duly sworn to testify to the truth and nothing but
[9] the truth of his knowledge touching and concerning
[10] the matters in controversy in this cause; that he
[11] was thereupon examined upon his oath, and his
[12] examination reduced to typewriting under my
[13] direction; and that the transcript is a true record
[14] of the testimony given by the witness.
[15] I further certify that I am neither attorney or
[16] counsel for, nor related to or employed by, any
[17] attorney or counsel employed by the parties hereto
[18] or financially interested in the action.
[19] In witness whereof, I have hereunto set my hand
[20] and affixed my notarial seal this day of June,
[21] 1998.
[22]
[23] Notary Public
[24] My commission expires 03/16/01

Lawyer's Notes

\$	2		
\$5 131:21	2 23:12, 14, 23:24:13, 15;	50.1 74:15	28:4; 33:7; 65:2; 69:22;
\$7 131:21	25:21; 26:4, 23:27:11, 21;	503 54:4, 9; 70:11	95:16; 107:6; 108:10, 12;
*	28:1; 29:3; 119:2; 131:12;	54 68:8	119:10; 130:20; 142:16
	132:21; 136:8; 140:3	56 12:9, 18, 24:14:11, 17;	above 17:10; 18:13;
	2.9 51:8, 10, 17	17:4, 12, 24:18:12; 24:16;	24:16; 26:5, 15, 24; 28:7;
	20 21:15, 20; 42:2; 46:10;	51:14	12:46:10; 47:10; 48:24;
*(Record 70:4	47:9; 48:24; 73:7, 9; 74:20;	6	50:16; 51:4, 18; 53:19;
*A 69:24	75:16; 77:8; 94:10		59:19, 21; 60:3, 17, 23;
*Q 69:19; 70:1	200 21:19, 22		61:11; 64:2; 65:5; 66:2, 5;
1	24 5:4; 7:18; 8:1, 13; 9:21;		18:67:19; 69:15, 23; 71:4;
1 12:2; 13:8, 10, 13, 16,	10:7, 17, 24:11:12; 13:18;		15:72:2, 4, 7, 18, 21; 73:3;
20:21:22; 27:24; 119:1;	18:14; 41:17; 42:12; 43:2;		21:76:7, 12, 19, 22; 77:1;
131:21	5, 16, 18; 49:7, 11; 50:2;		12:78:4, 8, 16; 92:13;
1,000 56:5, 5, 6	51:6, 17; 103:18, 21;		94:3, 5; 103:3; 107:1;
1.2 80:4	107:12; 108:1, 5, 18, 22;		119:19; 142:23; 144:19,
1.2.1 80:6	109:14, 17; 119:7; 124:5,		19
1.2.2 80:3	17; 131:22; 134:21, 23;		absolutely 8:6; 22:9;
1/2 106:2	139:24; 140:6, 9, 20;		26:8, 19; 27:6; 56:6; 113:7;
10 21:15, 20; 27:24; 73:6;	142:10; 145:10		129:24
82:18; 99:18, 20, 21;	24's 106:17		abstract 75:12
102:22; 103:6	27 30:22; 92:13		accept 5:5; 8:4, 10, 18,
10,000 57:18			20:27:23; 29:21; 30:23;
100 7:18, 21; 8:1, 9, 13;	3		46:24; 87:9, 10, 11, 17;
9:1; 21:17; 105:16; 106:5;	3 27:16, 18, 20; 28:4, 6,		90:11; 101:17; 107:23;
109:23; 110:7, 18; 112:6;	20; 29:2, 4, 5; 54:5; 67:24;		108:21; 119:17; 132:22;
122:22	94:14; 95:6; 103:15;		140:17, 19; 141:4; 142:6,
100-foot 20:6, 9, 14; 21:9;	105:23; 106:5; 131:13;		13
22:1; 73:23; 74:4; 75:3	136:8		acceptable 130:8; 144:4
1001 70:12	30 10:3; 22:1, 16; 42:3;		accepted 140:17
1005 14:4, 7, 15	55:3; 57:16, 21, 22; 73:24;		accepting 24:2, 6;
101 143:6, 6	74:4; 82:17, 19; 94:10;		136:12
11 24:1; 27:10, 22; 28:2,	99:1; 101:16, 22; 102:17,		access 6:15; 86:14
2, 20; 53:7; 102:22; 103:6,	19		accessible 71:12
10; 119:2; 135:10	35 75:7		account 39:2; 40:8
11,000 57:19	3:00 145:22		accuracy 99:12
110 54:13; 70:21; 71:23	4		accurate 23:19; 39:4, 10;
1101 55:8	4 29:13, 16, 18; 31:6; 53:7;		87:15, 17; 146:6
111 54:9	54:2, 5; 94:13; 97:11; 98:7,		across 51:8, 10
119 23:1; 106:19	9; 99:22; 103:11; 104:20		Act 23:1; 59:3, 4, 10; 67:7;
12 53:7; 127:17, 19, 21	40 67:18; 71:14; 72:2, 3		76:2
120 65:12	400 10:8, 15, 19		active 52:4
12:25 83:13	47 12:9; 17:24; 19:18;		actually 47:12; 60:4, 6;
13 89:1	48:14; 49:3; 51:13; 68:5,		71:13; 88:5; 124:2; 133:7
13th 4:24	10; 70:22; 71:5, 20, 24;		add 131:18, 19
15 5:19; 6:1, 16, 18; 7:13;	73:15, 21; 74:13; 78:6;		addendum 30:7, 10
11:8; 29:19; 75:9; 76:22;	91:24		additional 124:4, 9;
77:11	47.686 19:18		127:23; 129:16; 134:19
15-foot 77:20; 78:13	4900 4:22		additionally 135:11, 14
16 6:18	5		additions 80:16
16th 4:23	5 30:2, 4; 31:6, 9; 42:7, 9;		address 4:20; 15:13;
1980 96:5	43:9, 13; 45:15; 46:9; 48:7,		57:17; 63:8; 74:10; 93:24;
1980s 96:7, 8, 17	23; 49:12; 62:2; 76:18;		133:11; 135:9
1984 96:8	84:17; 89:14		addressed 71:13
1996 50:4; 109:15, 18	50 47:13, 18, 21; 48:17,		addresses 13:17; 50:7;
1997 6:13; 50:4; 51:7, 11	23; 82:10, 10, 12, 13, 13,		86:20
1998 5:19; 29:20; 30:22;	13; 85:5, 10; 104:8, 10;		addressing 47:12; 138:5
81:14; 146:9	105:20; 106:4, 12		adjust 94:20; 97:1
1:10 84:1			adjusted 54:12; 70:21
			adjusting 98:19
			adjustments 105:1
			advance 123:21
			advertising 39:8
			affect 103:2
			Affidavit 30:15, 21; 31:1,
			5
			affiliate 12:12; 130:22
			131:23
			affiliated 121:2, 15
			affirmative 52:24; 140:6
			AFTERNOON 84:1
			again 25:21; 27:2; 30:3,
			18; 33:1; 37:18; 44:7,
			46:13; 53:24; 69:12; 91:5,
			92:21; 96:9; 105:21;
			111:1; 114:3; 118:14;
			119:23; 128:11; 138:24;
			142:11
			against 64:12; 114:9
			ago 6:20; 9:13; 10:3; 99:1
			7:114:4
			agree 33:23, 24; 34:10;
			87:14, 16; 126:3; 130:18;
			136:22
			agreeing 28:9
			agreement 107:10
			agrees 131:21
			ahead 46:12; 136:4;
			142:24
			aim 114:10
			air 17:10; 18:13, 21;
			24:16; 26:5, 24; 28:7;
			50:16; 51:18; 55:3; 60:17
			61:11; 63:3, 16, 23; 64:2;
			69:23; 73:24; 75:14, 23;
			76:7; 100:15; 103:3;
			107:1; 119:19; 130:22;
			132:4; 139:19; 140:10, 1,
			142:23
			algorithm 40:13; 46:7;
			47:5; 48:20; 94:20; 95:20
			96:14; 97:1
			alleging 117:3
			allocating 78:22
			allocation 128:8, 20
			allocations 62:16; 81:1
			allow 38:20; 54:22; 65:1
			137:22
			alluded 70:9
			alone 138:7
			along 21:9; 55:23; 57:1;
			64:24; 139:15
			alphabetical 112:1, 5
			already 6:3; 16:5; 31:5;
			49:23; 119:22; 124:6
			alternative 63:7
			American 87:7; 88:10
			Americana 55:9
			among 37:14; 53:11;
			101:10; 110:3, 7; 121:11
			amongst 97:4
			amount 58:17; 67:22
			analog 79:5, 10, 15;
			80:10, 20; 81:5, 6, 17
			analysis 40:16; 117:21
			22, 24; 118:18
			angle 56:2
			answerable 15:10
			answered 16:5; 85:7;
			119:22

answering 44:23; 58:1;
130:10; 145:16
antenna 11:21; 12:22;
14:11; 18:15; 8:11; 18:20;
23:16; 2:12; 17:3; 18:17;
18:19; 4:28; 22:23; 29:8;
9:55; 1:3; 58:9; 15:23;
59:11; 20:23; 60:2; 4:6;
17:23; 61:1; 13:16; 62:6;
8:13; 18:24; 63:4; 13:17;
64:2; 4:8; 11:13; 15:20;
21:65; 5:21; 66:1; 5:6; 7;
69:21; 74:4; 75:7; 9:14;
17:19; 20:76; 14:15; 16;
17:22; 78:14; 82:15;
87:20; 24:88; 9:15; 89:2;
94:3; 98:14; 119:13;
126:11; 17:130; 3:12; 20;
132:6; 24; 139:6; 9:14;
140:22; 141:2; 6:7; 7; 12;
22:23; 142:19; 143:17; 17;
19:22; 145:3; 5
antennas 70:9; 88:12;
139:23; 144:3; 5, 6
antiquated 22:1
anyone 10:12; 11:6; 9;
52:18; 81:2; 84:4; 96:1
Anyway 82:20
anywhere 67:13
apartment 15:17
apologize 99:4
appear 17:7; 89:20
appeared 89:15; 16
appears 13:21; 54:4;
90:4
application 118:10
applied 58:11
apply 17:19; 57:22
applying 81:15; 82:6
approach 81:19; 20
approached 25:6; 12
appropriate 75:15;
76:24; 77:21; 107:7; 132:4
approve 30:9
approximately 8:1; 9:1;
11:8; 51:8; 54:8; 13; 84:6;
96:8
April 5:19; 6:1; 16; 18; 18;
7:13; 11:8; 29:19
arbitration 115:18; 19;
21; 116:16; 117:19
area 5:11; 12:7; 19; 8:2;
9:2; 12:1; 14:24; 15:2; 15;
32:24; 43:24; 44:4; 5; 23;
45:22; 46:6; 18; 19; 24;
47:2; 57:14; 17; 18; 62:11;
64:18; 82:1; 9; 10; 86:6;
12; 16; 89:18; 90:2; 5;
91:4; 20; 94:8; 127:11
areas 20:8; 35:11; 48:11;
79:9; 14; 80:9; 20; 81:6;
18; 23; 84:10; 17; 137:13
argue 105:4
argument 118:12
arise 102:8
Arlington 4:23; 11:17;

12:7; 13:23; 14:13; 15:6;
45:1; 86:5; 10; 14; 88:23
arm 122:2
around 6:16; 15:16;
62:22; 66:12; 79:1;
107:21; 137:9
arrange 66:17
arranged 7:16; 23; 8:8;
12; 9:3; 8; 41:15
arranging 120:9
artifact 116:4
assess 75:13
assessing 76:24; 111:3
assessment 136:24
assign 79:4
assigned 79:5
assigning 127:3
associated 145:16
assume 8:21; 16:1;
22:23; 23:20; 25:23;
49:10; 51:6; 12; 55:9;
77:24; 82:15; 90:12;
109:12; 110:21; 131:9;
132:2; 18; 133:4; 135:11;
14
assumed 121:22
assuming 28:3; 71:9; 13;
72:8; 87:22; 131:11; 136:9
assumption 29:7; 47:18;
51:9; 101:20; 119:1; 2; 6;
8; 131:19; 21; 24; 132:12;
21; 133:6; 134:22; 141:14;
142:6; 11
assumptions 23:7; 9; 16;
24:1; 2; 6; 26:22; 28:10;
19; 118:24; 119:14; 16;
131:13; 18; 132:11;
133:17; 134:2; 4; 20;
140:4; 16; 141:19; 142:5;
15
assured 53:12
asterisk 54:14
astounding 65:16
attached 31:2
attempt 55:2; 80:23;
127:10
attempted 79:8
attempting 75:13; 79:4;
14; 80:8; 82:8; 95:5;
113:15; 131:9
attention 13:19; 43:21;
53:23; 54:3; 112:22
attenuating 53:18; 55:18
attorney 4:11; 113:1; 16
attorneys 10:18; 41:17;
43:16; 113:3; 11; 124:5
availability 75:22;
104:18
available 37:4; 51:18;
61:11; 77:1; 84:4; 88:20;
95:23; 96:1; 99:2; 126:21;
127:19
average 66:11; 94:3;
105:19; 138:16
avoid 36:6; 48:1; 73:15

awards 77:7
aware 7:15; 23; 12:11;
36:15
away 16:1; 101:5; 16;
102:17
B
B 11:20; 12:8; 18; 15:7;
22:16; 10; 17; 23:1; 28:7;
12; 43:7; 46:9; 47:8; 48:7;
22; 49:12; 50:15; 51:2; 13;
19; 58:5; 62:15; 18; 65:10;
67:19; 68:4; 72:4; 7; 18;
20; 24; 73:2; 15; 82:2;
91:23; 92:13; 19; 93:13;
17; 19; 20; 100:8; 101:13;
23; 102:2; 4; 106:10; 11;
119:20; 142:22; 144:19
B-b-y 4:22
back 6:13; 20; 9:18; 19:5;
22:4; 6; 24:20; 27:3; 42:6;
44:8; 50:18; 55:24; 56:17;
62:19; 70:3; 76:11; 92:6;
105:13; 112:2; 113:14;
118:21; 120:14; 130:24;
131:12; 140:2; 141:10;
143:14
background 62:16
bad 44:24
balanced 97:4
Ballston 15:17
Baltimore 8:17; 9:9; 10;
10:10; 32:23; 33:2; 3
band 24:18
bandwidth 137:11; 17;
138:4; 5; 10
banging 55:1
bare-bones 37:21
base 28:14; 143:4
Based 26:2; 3; 28:10;
29:1; 37:11; 40:12; 58:9;
65:7; 22; 66:11; 119:16;
130:11; 18; 131:9; 134:21;
23; 135:1; 142:15; 144:10
basic 37:21; 23; 38:19;
40:10; 21; 41:2; 94:14
basically 73:11; 119:1
basis 17:23; 24; 24:7;
26:11; 91:20; 94:2; 19;
95:18; 110:10; 113:5;
123:13; 19; 23; 130:9; 10;
131:10; 14; 134:1; 135:16;
136:12
became 68:9; 88:20
become 101:7; 114:2
Beg 50:17
behind 104:4; 105:14
belief 138:21
believe 5:3; 6:8; 14;
12:20; 14:24; 15:16; 29:3;
35:20; 21; 37:7; 44:18;
45:1; 14; 16; 18; 47:17; 21;
48:10; 52:23; 24; 59:2; 8;
12; 22; 62:14; 17; 68:12;
78:18; 19; 79:20; 80:15;

81:14; 82:1; 85:8; 10; 91:3;
92:15; 93:24; 95:2; 97:10;
101:11; 102:9; 105:12;
113:21; 117:18; 119:22;
121:8; 9; 122:1; 129:10;
130:17; 134:14; 135:8;
136:18
believes 23:18
believing 123:13
BellSouth 118:13
belong 10:2
below 67:22
benefit 105:7
benefits 142:9
best 7:2; 4; 36:19; 24;
38:18; 39:4; 42:21; 81:8;
21; 84:5; 8; 123:1; 3
Bethesda 67:2
better 33:6; 47:1; 2;
74:18; 82:11; 86:4; 145:4
better-than-average
103:22
beyond 68:21; 124:5;
133:6
BIBY 4:2; 10; 22; 13:8; 9;
12; 13; 16; 19; 23:11; 13;
22; 23; 24:12; 14; 25:21;
26:3; 22; 27:11; 15; 17; 19;
20; 21; 28:1; 4; 6; 20; 29:2;
3; 13; 14; 15; 17; 18; 24;
30:1; 4; 15; 16; 18; 19;
31:6; 8; 9; 33:24; 34:1; 12;
13; 24; 35:18; 23; 38:8; 12;
18; 44:6; 16; 46:2; 6; 47:5;
48:6; 21; 49:8; 13; 53:7;
61:8; 86:13; 89:11; 14;
90:9; 16; 92:7; 94:13; 98:3;
99:13; 22; 100:1; 103:10;
104:9; 18; 20; 105:9;
110:14; 119:2; 121:9; 19;
21; 24; 122:7; 10; 11; 14;
140:2; 146:2
Bibby's 25:16; 33:17;
36:11; 95:6; 122:4
Bibby-C 35:24; 36:5; 7; 22;
37:3; 16; 19; 38:23; 24;
40:10; 22; 79:19
big 34:8; 36:8
bit 16:13; 70:7; 76:4;
77:15
black 33:18; 22; 45:17;
89:13
Blank's 74:3
blob 33:2
block 45:11
boards 17:24
body 83:4; 9; 113:20
Boston 91:9; 13
both 36:22; 37:21; 40:10;
22; 44:12; 104:13; 21
bottom 63:13; 22; 69:20;
102:21; 103:6; 11
bought 79:21
box 28:22
break 33:12
Brief 33:13; 125:17

broad 137:10; 138:4
broadcast 20:4; 22:16;
52:8; 22; 65:23; 97:5;
120:22
broadcasters 80:10;
113:2; 4
Broadcasting 4:4; 38:5;
40:4
Broward 50:3; 108:23
buildings 15:2; 16;
53:16; 55:14; 90:13; 24;
91:3; 9; 94:16
bulk 97:17
Bulletin 81:13
burdens 121:22
Bureau 68:17; 69:5; 80:5
business 57:16; 89:17;
90:7; 17; 121:23; 133:13;
21; 134:10; 136:1
businesses 121:6
buy 60:18; 84:4

C

C 36:12; 99:6
C-band 125:5
C.F.R. 19:18
cable 87:7; 19; 22; 88:4;
17; 19; 23; 130:2; 131:3;
141:18; 20
calculate 38:20; 63:15
calculations 38:24; 39:3
calibrate 64:12; 15; 16
calibrated 19:8; 11
California 65:15; 115:17;
116:16
call 5:11; 12:17; 36:8;
75:4
called 4:3; 34:14; 39:24;
81:13; 82:11; 86:22;
121:8; 9; 24; 138:2; 144:22
came 68:7; 69:19; 88:24;
89:1; 98:14
can 5:13; 6:11; 7:1; 9:10;
14:19; 15:10; 18; 19:5;
23:8; 32:22; 33:11; 34:2; 4;
16; 35:20; 36:3; 37:7;
38:22; 39:20; 43:23; 44:3;
8; 12; 16; 18; 22; 45:7;
47:1; 20; 55:18; 56:12;
57:23; 61:7; 19; 65:3; 70:7;
75:10; 77:11; 78:14; 81:8;
21; 89:19; 21; 22; 22; 90:6;
91:5; 92:3; 100:21;
104:14; 108:7; 114:1; 3;
115:13; 119:17; 123:3; 4;
20; 124:23; 125:15; 126:2;
7; 11; 12; 15; 130:7; 24;
131:6; 133:10; 12; 14;
134:9; 135:5; 7; 8; 24;
136:4; 139:17; 140:10; 11;
12; 20; 141:9; 142:24;
143:1
candid 17:20
capability 36:18; 37:20

capable 15:6; 16:9; 24:15; 61:21 captioned 29:14, 24; 30:15; 38:4; 50:2; 54:1 career 47:24 careful 42:24 carefully 72:12 Carolina 8:2; 98:24 carrier 137:19, 21 carry 87:23; 88:1, 5 carry-over 103:11 carrying 121:22 case 12:10; 61:23; 71:23; 88:4; 102:16; 114:2, 7, 13; 115:18, 19, 21; 116:1, 6; 117:1; 118:8, 12, 16; 125:10; 127:1 cases 5:10; 22:15; 65:17; 19; 71:10; 77:24; 88:4; 101:11; 102:18; 117:16; 120:19 category 145:13 cause 55:14; 118:7 caused 39:23 caveat 43:10 CBS 4:4; 12:11, 12; 24:17; 26:7; 28:8; 43:17; 50:3; 51:2, 19; 85:1, 14; 119:12, 21; 140:20; 142:18, 23 CDS 121:10; 122:4, 7 ceased 99:7 cellular 22:22; 52:2, 4; 56:2; 96:20; 97:6, 14; 114:14, 16; 115:16; 116:1, 9, 10, 15; 117:7, 21, 24 center 45:11, 21; 90:5; 91:1 centered 74:4 certain 7:16, 24; 8:12; 9:3, 11; 13:17; 23:6; 25:22; 35:11; 39:10; 84:22; 95:2; 106:5; 109:9; 131:14; 134:3, 3 certainly 99:8; 107:24 CERTIFICATE 146:1 certify 146:2, 4 CES 122:12 cetera 6:8; 81:12; 126:18 chance 46:8; 47:6 change 29:2, 10 changed 29:7; 105:11; 130:14, 17 changes 40:14 Channel 12:15, 18, 24; 14:12, 17; 15:7, 22; 16:21; 42:7, 9; 43:8, 13; 45:15; 46:9; 48:7, 23; 49:12; 54:2; 62:2; 81:12; 84:17; 97:11; 98:7, 8; 129:7; 137:12 channels 16:20, 21; 78:23; 79:4, 5; 92:10; 126:21; 127:6, 7, 17, 19, 21 characteristics 19:5, 6,	10:62:9; 63:17, 20; 64:4, 17, 19; 66:2, 10; 111:4; 139:15, 22 characterizing 90:1 Charlotte 6:7; 8:2, 14; 9:9, 14, 19; 10:9; 98:23 chase 17:18 check 27:11; 116:3 checked 53:1 checks 28:22 choice 40:5; 55:4 choices 35:5 choose 38:22; 41:12; 56:13; 80:11; 110:18 choosing 111:21, 22; 112:24 chose 80:21; 121:23 chosen 94:2; 109:21, 23; 110:24 circles 32:1 circular 93:16 circumstances 15:15; 72:12; 120:18 citation 116:4, 5 cite 115:24; 116:2, 3 City 32:22; 34:8; 91:17; 92:1, 10, 18; 93:13, 16, 18, 19 city-grade 91:17, 19 clarify 4:18; 6:17; 25:2 clear 11:13; 37:19, 24; 53:5; 55:24; 59:13; 61:4; 65:20; 80:1; 117:5; 119:3; 120:1; 132:13 clearly 57:20; 76:16 client 115:15 client's 116:6 clients 10:4; 97:16 close 54:17; 74:19; 90:19; 94:23; 101:12; 102:15; 105:4 closed 34:4 closer 105:6 clue 27:7 cluster 57:10, 14, 21 clutter 39:2; 53:19; 55:10, 16; 56:21, 23; 90:13, 21; 94:9, 10 cluttered 76:4 Co 4:4 coach 25:10 coaching 25:14; 47:23; 77:7; 110:11; 123:15 code 19:24 Cohen 5:19; 6:12; 7:16, 23; 8:11; 9:2, 8, 12; 43:14; 49:22; 53:13; 54:11, 18; 71:10; 74:2, 3; 104:24; 105:7; 106:16, 22; 107:9, 11, 19; 113:2; 125:11 Cohen's 6:1, 4, 23; 7:12; 10:13; 11:14; 49:23; 50:1, 14; 53:8, 23; 54:20; 59:5; 65:9, 17; 70:12; 107:5;	123:8 coherence 138:9 coincidence 9:16, 17; 11:3, 5 collect 60:24; 65:4; 67:15; 68:14; 96:3; 125:16 collected 9:19; 21:1, 23; 40:16; 53:13, 17; 94:17; 96:16, 20; 108:2; 123:8, 9, 10 collecting 64:8; 97:8, 15 collection 46:20; 53:8; 69:3; 84:19; 90:3, 4; 91:2 collects 21:18, 19 color 33:8, 18, 20, 21, 23; 34:1, 1, 2, 8, 11; 43:21 colored 89:11 Columbia 43:23 coming 65:24 comment 8:7; 125:22; 128:19; 129:5, 6 commentary 76:5 comments 53:8; 114:23 commercial 36:13 commercially 84:3 Commission 20:2; 113:18, 20, 22, 24 commissioners 113:20 committee 115:1 commonly 114:22 Communications 113:18, 19, 22, 24; 121:19; 122:5, 17 communities 137:14 community 91:22; 94:6 companies 121:10, 16 company 119:10; 121:8, 9; 122:15; 123:2; 124:21 comparable 17:21, 22; 18:1; 37:5 compared 71:24 competence 124:1 competent 52:22 compiled 109:16 complete 30:19 completed 98:12 complex 114:7 complicate 48:15 complicated 138:6 component 113:23 computation 40:12, 22 computational 40:13; 94:20; 97:1 computations 40:10 computer 32:13; 35:3, 6, 7; 36:16; 39:24; 46:7; 47:5; 86:21 computer-generated 45:13 computerized 37:20; 85:18 con 6:24 conceivable 15:1;	136:14 conceivably 58:2 concentration 90:24 concept 86:22 conceptual 136:22 conceptualize 107:6 conceptually 126:12 concerns 23:3 conclude 78:15; 142:20 concluded 145:22 conclusions 23:8; 113:6 concretely 62:2 condition 70:5; 89:7 conditions 53:14 conducted 7:17; 8:12; 9:4, 4; 10:22; 11:10; 20:13 conducting 10:18, 23 conducts 76:21 confidence 82:12; 105:23 confidences 120:23 confident 68:10; 120:22; 139:18 confirm 29:18; 30:4, 20 confuse 73:12 confused 115:23 confusion 36:6; 42:2, 2; 60:1; 73:15 conjunction 43:18; 124:11 connected 61:1; 130:12 connection 10:6; 41:16; 42:11; 43:15; 83:1, 6; 124:10; 133:21 consider 94:15; 106:22, 144:4, 18 considerable 78:5 considerably 92:18 considerations 54:24; 77:4 considered 103:13, 14 consisting 21:22 constructed 72:12 consulting 10:4; 68:16; 99:6; 114:21 contained 24:12; 26:3; 27:11; 28:4 contains 13:21; 33:18 Contel 115:16; 116:1, 9, 12, 15; 117:1, 3, 4, 19 content 38:15 contention 26:9 contesting 118:12 context 42:22; 81:9; 87:3; 137:10 continuation 55:12 Continuing 103:10 contour 49:12; 82:3, 5; 91:20; 101:13, 13, 15, 23; 102:8 contract 68:16; 117:5 contractors 107:5 convenient 62:6	conventional 11:21; 12:21, 14; 10:17, 15-8 16:11; 17:3; 18:16, 18, 21; 12:62:13; 75:20, 76:15; 81:19; 119:13, 142:19 conventionally 21:15 converted 36:12 copied 89:12 copies 33:22; 34:8 copy 5:24; 29:19; 30:5, 21; 33:6, 8, 17, 18; 34:1, 2 38:10; 39:8, 8, 18; 43:22 Copyright 23:1 copywriter 41:1 corporate 121:2 corporation 114:12; 121:20; 122:2, 6 corrections 146:6 correctly 36:3; 46:5; 126:4 correlated 144:15 correlation 132:3, 22; 133:4, 8; 138:22; 139:2, 4 12, 18 corresponding 85:13; 92:9 corresponds 21:17; 91:24 cost 84:6; 140:24 couldn't 74:17; 131:11 counsel 4:3 Counties 50:3; 108:23 country 66:12 couple 19:7; 84:16, 18; 114:4 course 30:24; 42:20; 66:14; 126:10 Court 5:2; 13:7; 23:10; 27:15; 29:12, 22; 38:2 courtroom 116:12 cover 39:1; 127:1 coverage 38:21; 57:17, 18; 79:9; 80:9, 19; 81:18 82:9; 84:17; 99:22; 100:13; 117:4, 6, 22; 118:13, 15; 126:13, 16; 127:5, 11; 128:2 covered 43:24; 118:21 crane 66:16 crank 126:9; 127:22 Cranking 68:18; 126:1 16; 127:11, 15 create 31:14, 15; 36:23 96:24; 121:24; 127:23 created 31:17; 34:14, 1 35:19; 39:21; 40:13; 42:10; 43:7; 80:12; 109:13; 120:10; 122:3 creating 34:23; 81:6 creation 41:15 criteria 142:3 criticism 107:15, 18; 110:6, 13; 112:6 criticized 59:5; 106:15
---	---	---	---	--

20
CROSS 125:20
cross-channeling
126:23
Culver 11:7, 10:25:15;
52:16, 20:78:1
current 128:8, 20
currently 79:5
customer 5:10
customers 5:5
cut 17:18; 42:14
Cutler 4:11
cutting 115:11
cycles 65:19

D

D 49:22; 50:1, 7, 13
D.C. 12:12; 42:7, 10; 67:1;
74:22; 90:8, 14
Dade 50:3; 108:22
dark 32:23
data 6:14; 9:18; 10:2, 3;
21:21; 40:16; 53:9, 12, 16;
60:24; 64:9; 67:15; 68:14;
69:4; 78:3; 94:17, 21; 95:9,
13, 14, 17, 18, 22; 96:4,
10, 12, 16, 19, 22, 24;
97:2, 3, 9, 10, 15, 17, 20;
98:4, 5, 16, 19; 99:2;
116:19; 118:7; 120:5, 6;
122:2, 5, 17; 123:9; 143:4
database 39:1
date 5:23
dated 5:19; 6:1, 16; 11:8;
29:19; 81:14; 146:8
Davis 99:6
day 25:4, 15; 34:8; 146:8
day-in-and-day-out
42:16
days 22:4, 6
dB 73:5, 6, 7, 9; 74:20;
78:6; 92:13; 94:5
dBu 12:9, 9, 9, 18, 24;
14:11, 17; 17:4, 12; 18:12;
24:16; 48:14; 49:3; 51:13,
14, 14; 54:9, 13; 68:5, 8,
10; 71:5, 20, 21; 73:19, 21;
74:6, 13; 75:1; 78:13, 17;
91:24, 24; 92:9; 100:15
dBu's 23:3; 72:18; 101:3;
103:2
dBuV 27:8
deal 17:7
decade 79:1; 96:9
decades 66:13
decibel 73:11
decibels 67:19; 71:15;
72:4; 73:17; 132:23
decided 140:5
deciding 107:16
decision 72:16; 134:10
declaration 6:13
decreases 105:6

deficient 135:19
define 21:10; 91:6
defined 93:19; 106:18;
129:18
defining 18:5
definite 114:1
definitely 120:19
definition 17:19, 20;
18:4; 21:21; 62:15; 93:16
definitive 135:15, 24
degree 68:20
demodulation 137:22
depend 127:12
depending 36:21; 91:6
depicted 38:21; 48:11;
65:17
depicting 32:6
depiction 46:20
depictions 65:9
deposed 4:13
deposition 25:4; 50:1;
145:21
depositions 115:7, 9
describe 20:6; 32:12;
121:1; 145:2
described 11:7; 24:14;
28:6; 29:8; 57:14; 112:13
describing 10:9; 64:3;
68:24; 70:15
description 107:24
designated 34:11
designed 94:19; 95:19
details 25:1
deterioration 70:9
determination 20:8;
58:9; 135:16
determinative 76:2
determine 9:19; 15:4;
17:1; 18:11, 20; 32:20;
63:2, 9; 66:18; 69:22; 76:6;
81:17; 84:9; 106:17
determining 5:5; 16:9;
43:5; 58:3; 64:17; 68:13;
86:19
DEUTSCH 5:20; 7:1; 8:6;
19, 24; 11:3; 14:2, 16:4;
17:14; 20:15; 23:15; 24:5,
19, 22, 24; 25:3, 11, 13;
26:9; 28:18; 30:24; 31:7,
10, 24; 32:9, 16; 33:8, 15,
19; 34:3, 10, 20; 35:8;
38:6; 39:11; 41:18, 24;
45:7; 46:12, 14; 47:11, 17;
48:1; 50:9, 20; 52:11; 53:2,
4, 56:20; 59:1; 60:8; 61:13,
19; 66:4, 9; 69:10; 70:2,
23; 71:6; 72:8, 14; 73:4,
22; 75:5, 10, 18, 24; 76:9,
15, 20; 77:2; 83:11; 84:12,
22; 85:23; 87:13; 89:19,
22; 90:1; 93:2, 6, 10, 15;
94:22; 95:1; 97:22; 99:9,
20; 100:17, 20; 101:19, 24;
102:3, 9, 14; 104:14;
108:7, 19; 109:2, 5, 10;
110:8, 12; 111:1, 5, 10;

112:10, 14; 115:2, 7;
116:8, 15, 19; 117:13;
121:3, 5; 122:24; 123:3,
11, 17; 124:12; 125:19, 21;
130:24; 132:10; 138:11;
141:9, 13; 142:11, 24;
143:8, 12; 144:23; 145:20
develop 62:5
developed 40:7; 81:23;
83:1; 108:18, 20; 117:11
developing 96:13
development 15:1
deviation 54:12; 75:2
device 19:10
diatribe 25:14
Dick 131:3
difference 28:1
differences 36:20;
101:10
different 16:19; 18:7;
43:4; 60:11; 63:7; 64:11;
73:14; 84:15; 100:10;
118:22; 121:1, 12; 127:3;
140:9, 11, 12, 13
difficult 48:10; 101:9;
103:12, 14; 107:5
difficulty 130:15
digital 21:18; 78:22; 79:4,
10, 15; 80:9, 20
dimensions 57:13
dipole 64:8, 12, 22
DIRECT 4:8; 7:6; 13:18;
43:21; 53:23; 54:3; 57:6;
124:19; 131:2
direction 10:13; 34:18;
35:2; 55:15
directly 34:16; 58:1;
131:4
disagreement 107:10
discover 62:20
discrete 21:19, 20
discuss 55:7; 143:8
discussed 11:4; 30:11;
52:18; 53:19; 79:24;
95:15; 96:11; 110:15, 16
discussing 41:3; 46:23;
65:6; 81:16; 103:16;
137:6, 13
discussion 42:14; 73:12;
78:5; 82:22; 92:5; 102:12;
127:18; 143:13
discussions 48:9
DISH 125:3
disparity 30:12
dispersed 97:7
dissertations 99:10
dissident 117:2
distance 21:15
distances 65:11; 105:2
distant 131:23
distinction 41:6; 42:13;
46:23; 134:12
distinguish 36:1
distressed 15:12

distributors 109:3, 4
District 43:23; 45:19;
89:17; 90:7, 17
disturbs 62:11
document 6:5; 13:8, 9,
14; 23:11, 13, 24; 27:14,
17, 23; 29:13, 15, 23; 30:1,
13, 14, 16; 31:23; 32:8, 10,
14; 33:6; 38:4, 8, 10;
44:13; 54:7; 69:1; 115:10
documentation 80:2
documents 31:5
dog 81:11
domain 58:18; 67:10, 12
done 6:23; 7:24; 9:11, 13;
19:12; 20:9, 14; 22:7, 8;
37:9, 22; 40:12; 41:23, 24;
42:17; 48:17; 52:1, 4;
54:20, 23; 69:4; 74:18;
98:8, 22; 99:11; 105:9;
107:24; 118:20; 120:10;
124:6, 16, 19; 125:3;
135:15; 136:20, 23
door 66:19
dot 45:17
doubt 105:8; 123:7
doubts 18:6
down 5:1; 32:11; 39:8;
42:18; 67:12; 71:19
downtown 89:16; 90:7,
14, 17
Dr 80:5
drama 55:22
dramatic 55:19; 56:7
draw 23:8; 113:5; 133:14;
134:11, 23; 135:24
drawing 14:23
drawn 137:1
driveway 76:23; 77:12,
20
driving 55:22
drop 67:22
dropping 58:6
duly 4:6
during 21:16; 96:3;
109:14; 143:9

E

each 27:10; 81:23;
126:21; 127:2, 3
earlier 78:18; 98:22;
130:1; 131:9; 134:1
ears 143:19, 24
easier 33:21
EcoStar 125:1
editing 116:5
effect 55:13; 96:23
effective 94:2; 100:12
effects 53:19; 55:18;
56:9, 11; 94:9, 15
effort 49:16, 18; 140:24
eight 109:22; 112:8

eighth 109:22; 110:24
either 33:5; 36:4; 57:7
38:22; 40:5; 41:12; 71:10;
114:23; 117:10; 118:4;
123:13
elaborate 70:7; 108:11
elected 87:22
electronic 22:7; 37:4
elevation 74:5
eligibility 76:2
else 11:6; 39:7; 114:15;
127:24
empathy 57:4
emphasize 57:7
employ 99:6
employed 34:22; 94:4
employees 122:11, 12,
15, 18; 123:2
employs 38:19; 41:2
enable 24:13; 44:19;
120:2; 142:20
enables 40:1; 41:12;
85:16
encompass 91:21
encompassed 20:16
encountered 88:14
end 93:2; 96:9; 108:10;
109:7; 141:6
energy 137:17, 19, 21
engaged 117:2
engineer 26:10; 52:22;
57:4; 60:2; 61:9, 18; 65:23;
76:21; 77:3; 131:16;
138:15; 142:20
engineering 26:20;
114:20; 120:5; 121:9, 19,
24; 122:7, 10, 14; 131:15;
133:12; 134:2, 8, 9;
135:16, 21, 24; 138:17
engineering-based
133:12
engineers 54:20; 59:5;
114:21; 123:8
enjoy 100:13
enormous 65:11; 68:1
enough 58:12; 90:20;
94:23; 105:4; 123:15;
127:3, 6
ensure 19:10; 105:18
ensuring 104:17
enter 55:6
entire 94:6; 113:6;
123:21; 127:5; 135:9;
137:17
entirety 91:21
entities 121:2, 12
entity 121:24
entry 13:20
environment 36:8;
103:2; 125:13
environments 94:18;
95:10; 102:23
equipment 22:1; 60:3;
66:3, 8; 70:6; 132:14

essentially 57:5; 60:9; 88:20; 137:11 estimate 123:1, 3 et 6:7; 81:12; 126:17 evade 67:3 evaluating 83:6; 142:3 evaluations 83:1 evasive 22:14; 45:6 even 15:18; 45:16; 65:21; 95:16; 123:24; 129:22; 137:24; 140:18; 144:19 evenly 97:7 event 95:5; 106:13; 134:19 every 55:14; 108:6; 109:22; 110:23; 111:22 exact 29:3; 42:15; 66:18 exactly 37:8; 63:14; 94:22; 98:10 examination 4:3, 8; 125:20; 138:12 examined 4:6 examining 43:1 example 6:21; 32:22; 64:7; 71:15; 85:21; 86:4; 88:18; 104:16; 107:11; 124:12; 141:16 examples 47:23; 91:8 except 27:21 excess 52:6; 65:12 exclude 109:5 Excuse 141:9 executed 6:18 exhibit 6:2; 13:8, 10, 13, 16, 20; 23:12, 14, 23; 24:12, 15; 25:21; 26:4, 23; 27:11, 16, 18, 20, 21; 28:1, 4, 6, 20; 29:2, 3, 13, 16, 18, 23; 30:2, 4, 17, 20; 31:3, 9; 33:2, 4, 10, 24; 34:2, 12, 13, 24; 37:2, 11; 38:3, 7, 9, 12, 13, 18; 43:22; 48:12; 49:22, 24; 50:1, 7, 13; 53:7, 24; 54:5; 70:11; 89:12, 14; 90:9; 94:13; 99:22; 104:20; 105:9; 119:2; 120:9; 140:3 exhibits 31:1, 4; 116:8; 131:12; 136:8 exist 49:4; 58:7; 59:16; 99:7; 135:18; 137:24 existed 58:4 existing 38:21 exists 78:10; 103:1; 113:15 expand 16:13 expect 74:21; 94:9; 101:6 expense 66:24; 97:17 expensively 66:16 experience 29:1; 55:22; 65:8, 22; 66:12; 130:2, 12; 131:9 expert 5:18; 6:1, 4, 12, 15; 7:13, 15; 8:11; 11:7; 25:7; 29:14, 19, 24; 30:10; 49:22, 23; 50:1, 14; 52:15; 53:6, 20, 24; 70:12; 94:13; 99:18, 21; 106:15; 108:9; 113:12; 125:11; 133:12 expert's 25:4 expertise 68:21 explain 104:3; 105:14 explanation 128:14 explore 58:10 express 131:14, 16 expressed 64:21; 68:12; 107:4 expressing 57:4 extend 40:9 extended 40:21 extension 41:4; 80:22, 24 extensions 37:23 extensive 40:16, 18; 118:15 extensively 87:1 extent 57:3; 100:3; 106:17 extra 33:9 extract 44:10 extreme 65:8 extremely 15:12; 44:22; 67:20, 21	F F 53:24; 54:5; 70:11 faced 107:6 facetious 68:18 facilities 130:15 fact 28:9; 29:19; 47:14; 85:11; 120:7 facto 40:11 factor 101:8; 105:10; 106:12 factors 16:6; 77:19; 126:16; 144:11 facts 26:2; 120:6 factual 23:6 fail 137:24 failed 117:4 failing 71:16 fails 129:7 fair 8:6; 24:5; 92:16; 100:3; 103:5; 128:5 fairly 40:17; 114:1 familiar 14:1, 4; 19:17; 20:1, 3, 5; 78:21; 85:16; 88:1 familiarity 138:16 family 121:22; 129:3 far 76:12; 93:22; 102:8; 109:19 FCC 12:18; 19:17; 20:5, 18; 49:12; 57:10, 21; 62:14; 69:1; 79:3, 8, 13, 17, 21; 80:10, 16, 23; 81:5, 14; 82:2, 6, 9, 23; 91:15, 16; 92:16, 24; 93:4, 7; 114:2, 18, 24; 115:12, 13, 20, 22, 24; 116:23; 117:16; 129:18 FCC's 78:21; 88:1; 91:20; 92:9; 93:9, 11 Federal 5:1; 69:8, 14; 113:18, 19, 23 feel 61:21; 89:24; 112:17, 23 feet 21:17; 22:1, 17, 20, 22; 42:3, 3; 46:10; 47:9; 48:24; 55:3; 57:17, 21, 22; 59:19, 19, 21; 73:24; 74:4; 75:8, 9, 16; 76:18, 22; 77:8, 11; 82:17, 19; 94:10, 11 fellow 57:4 fetch 33:9 few 65:21; 66:12, 20; 70:15; 87:18; 116:11; 125:19 field 53:8; 54:2; 65:23; 94:4 fight 81:11 fighting 81:11 figure 34:5; 54:12; 75:1 filed 118:11 files 114:23 filings 114:10 fill 25:14 final 31:9, 10, 12; 134:22 find 35:17; 44:14; 48:9; 49:16, 19; 95:17; 108:15; 127:12 fine 24:24; 32:15; 33:11; 39:6; 42:13; 74:9; 112:14 finely 39:16 fingers 22:5 finish 76:10; 108:10; 135:13 firm 10:4; 99:6 firmly 62:17 first 4:6; 6:6; 12:6; 30:14; 58:22; 85:7; 111:18, 18; 119:6; 131:19, 24 firsthand 65:8 five 59:19, 20; 68:7 fixed 69:4 fixed-location 59:11 FL 54:2 Florida 108:23 flow 120:20 FM 22:15, 19; 97:5, 13 focus 16:19; 38:16 Focusing 95:14; 96:9, 12; 117:16 follow 33:17; 51:9; 61:10; 96:14; 108:3, 24; 109:19, 24; 140:15 follow-up 68:3 followed 78:24; 134:4 following 94:4; 107:23; 109:13; 119:9; 127:9	follows 4:7; 81:10 forbid 98:3 force 67:8 forced 55:23 foregoing 146:3 forfeited 25:4 forgotten 99:4 form 24:13; 26:4, 11; 28:5; 44:19; 90:8, 10; 119:17, 24; 120:2; 128:24; 130:23; 132:8, 14; 135:3; 136:3 forth 25:22; 26:2, 22; 28:19; 57:9, 21 FORTRAN 36:12 foundation 123:12 four 52:5, 8; 97:12; 115:12 Fox 4:4; 24:17; 43:17; 51:22; 85:2, 14; 119:12; 140:20; 142:18 frame 96:6 framed 69:17 framing 62:14 frankly 57:3; 74:17; 97:11; 98:15; 105:4, 7 free 89:24 freedom 58:12 frequencies 21:18; 40:2; 56:2; 94:18; 95:9; 96:20; 97:4 frequency 55:21; 126:20; 127:4; 137:20 frequently 42:18; 114:22 front 54:16; 66:17; 71:11, 22; 72:5, 24; 73:19 full 42:24; 59:16 full-time 52:4 functionality 36:2 functioning 88:11; 132:15; 139:9; 144:5, 6 fundamental 139:11 fundamentally 123:18 further 125:18; 131:18; 146:4 furthest 135:8 future 119:3 fuzzy 61:7	generating 35:9, 10; 36:18; 116:24 geocoding 86:22, 24 geographical 35:10 geological 86:15 George 99:6 gets 42:17 ghosting 144:17, 21 given 36:22; 86:13, 18; 117:9; 118:4, 17; 123:23; 127:23; 129:4, 21; 131:13; 136:6, 7, 8; 137:18 gives 27:7; 40:4; 81:15; 106:20 giving 2:15; 105:7; 110:10; 133:7 glance 50:8 Glebe 13:22; 14:3, 4, 7, 15; 15:5 goes 5:4; 55:16 Good 4:10; 14:6; 22:2; 36:10; 41:9; 50:12; 57:3; 59:19; 119:11; 138:8; 142:4, 9, 17; 143:22, 23; 145:2 government 69:8, 14 governmental 69:1; 83:4, 9 Grade 11:20; 12:8, 18; 15:6, 22; 16:10, 17; 22:24; 28:7, 12; 43:7; 46:9; 47:8; 48:7, 22; 49:12; 50:15; 51:2, 13, 19; 58:5; 62:15, 18, 19; 65:10; 67:19; 68:4; 72:4, 7, 18, 20, 24; 73:2, 15; 82:2; 91:23; 92:1, 10, 13, 18, 19; 93:13, 14, 16, 17, 18, 19, 19, 20; 100:8; 101:12, 13, 15, 23, 24; 102:1, 1, 1, 3, 8, 15; 106:10, 11; 119:20; 142:22; 144:19 grandfather 118:7, 9 grants 116:10 graphical 81:20 grateful 30:20 great 17:7; 71:18; 101:1 greater 57:14; 58:5; 74:13; 84:21 ground 4:16; 46:11; 47:10; 48:24; 76:23; 77:1 Group 4:5; 109:6; 112:4 guess 41:6; 52:6; 58:19; 59:18; 60:10; 70:24; 114:4; 122:24 guesses 67:13; 122:23 gut 112:17, 22 guy 42:17
--	--	---	---

96:23
hand-selected 113:3
hands 127:13
happen 55:11
happened 9:20; 18:16;
98:10, 15
hard 45:16
harsh 107:18
haven't 95:16; 132:13
hazy 133:20
head 20:2
hear 19:20; 25:15; 56:24;
130:24
heard 47:22; 111:8;
134:14
hearings 115:8; 116:12
height 22:10, 12, 20;
41:23, 24; 47:9; 48:13, 24;
49:4; 75:16; 76:17; 77:8;
78:14; 82:14, 15; 94:3;
126:17
held 67:7; 138:7
helpful 19:23; 33:16;
35:24; 68:3
Here's 13:11; 30:18;
60:1; 105:21
hereby 146:2
Hey 42:19
high 16:21; 17:4, 12;
18:14; 24:18; 51:14; 56:9;
59:17; 143:6
high-rise 15:16
higher 55:21; 77:3, 5
highly 72:10; 74:11, 14
highway 55:23; 97:5
Hillicrest 55:8; 70:13
hire 66:16
hold 32:10, 13, 14
hole 32:2
home 4:20; 11:16, 22;
12:6, 24; 13:4; 28:13;
53:14; 54:16, 17; 71:5;
76:1; 78:4
homeowner 60:5
homeowner's 29:9;
132:16
homes 7:17, 20, 24; 8:13;
17:11
honed 39:16
honor 113:16
hooked 89:5; 141:17
hopes 64:6
hour 143:10
hours 67:13, 15
house 60:5, 7; 62:2; 66:1,
2, 5, 10, 11, 17; 67:2; 68:7;
69:19; 71:11, 17, 22; 72:5,
7, 13; 1, 3, 19, 21; 74:3, 12;
75:7; 78:14, 16; 89:3;
119:20; 134:16
household 16:8, 9; 27:1;
53:18; 56:22; 57:23; 58:3,
4, 8; 60:23, 24; 61:12;
66:19; 69:23; 70:14, 19;

75:14, 16, 19; 76:13, 23;
78:2; 88:15, 16; 105:19;
130:9; 135:15, 22; 142:21
households 43:6; 69:16;
87:7; 88:10; 103:18;
105:18; 106:18; 107:1;
128:20
housekeeping 30:19
Hufford 80:5
Hundreds 20:11; 21:3, 4,
6, 7; 108:1; 127:20
hung 18:9
hypothetical 108:11

I

idea 14:6; 41:1; 70:17;
99:8; 124:1; 141:5
ideal 59:1
identical 27:21, 24; 37:1
identification 13:10;
23:14; 27:18; 29:16; 30:2,
17; 34:12; 38:9
identified 92:8
identifier 45:24
identify 5:23; 85:17; 86:2
ignored 104:24
Illinois 81:10
illustrate 55:21
illustration 56:10
illustrative 42:1
immediate 57:11; 58:11;
78:7; 137:16
immediately 118:6
impact 25:20; 93:7;
95:15; 96:10
implementation 39:24
implementations 36:1;
37:19
implemented 36:13;
39:23; 61:6; 94:19; 95:19
implications 47:15
important 46:22; 55:11;
104:24
imposed 56:4
impression 90:8, 10
Inc 4:4; 116:20
Inc./Sierra 116:16
inch 21:8, 9
include 109:10; 115:2;
120:22
includes 90:5, 7; 109:2
including 21:24
inclusion 30:9
Incorporated 122:18
increase 126:5, 6, 15;
127:10; 129:15
increased 126:13
indefinitely 126:9
indicate 35:11; 45:22;
48:12
indicated 20:19; 33:19;
65:10; 82:2

indicates 76:2; 92:9
indicating 28:22
indication 65:9
indicator 78:9; 138:8
individual 21:22; 114:23
industry 22:18; 52:2, 4,
8; 96:21; 125:6
inference 133:15;
134:12, 23; 135:2; 137:1
inferences 131:6
influence 43:11
information 13:21;
28:13; 35:11, 14, 15, 18;
54:3; 72:9, 15, 16; 78:3;
85:19; 86:7; 120:2, 5;
124:3; 130:21; 135:22
inherited 118:11
ink 22:5
innermost 112:18
input 36:23; 42:22
insight 63:8
install 58:14; 60:23;
140:22
installed 60:6
installing 60:4; 66:1;
141:1
instance 74:22; 86:15
instances 102:7
instead 28:21; 56:22;
112:24; 143:17
instruction 24:11
instructions 35:16;
36:23; 37:12
instrument 19:8; 66:18
insufficient 137:22
insult 113:15
intend 95:4
intended 22:14, 20; 53:3;
57:17; 93:1, 4; 128:17
intends 92:16, 24
intense 14:24
intensity 10:14, 23;
11:10, 20; 12:9; 15:7;
16:10; 18:21; 20:7, 10, 12,
24; 23:1; 26:5, 24; 28:7;
43:7; 46:9; 47:8; 48:7;
50:16; 51:2, 13, 19; 54:2;
58:5; 60:22, 24; 61:11;
62:1; 63:2, 5, 23; 64:9, 18;
65:4; 66:3; 67:20; 69:15,
23; 70:14; 72:3; 75:9, 14,
15, 22; 76:22; 77:1; 78:1,
4, 16; 92:19; 93:13; 100:8;
103:8; 106:10, 12; 107:1;
119:20; 142:22
intent 59:3, 4, 18; 93:9;
104:23
intents 62:20
interest 97:24; 98:2, 6;
121:15, 16, 18
interference 99:23;
100:4, 10, 14, 24; 101:7,
12; 102:7, 20; 125:23;
126:19, 23; 127:9, 14, 24;
128:2, 6, 10, 15, 18, 22;

129:5, 8, 14, 16, 23
interrupted 123:22
interruption 23:5
into 39:2, 14; 40:7; 42:22;
55:1, 1; 56:4; 61:17; 88:23;
116:3; 118:24; 119:4;
136:21
introduced 62:11
intuition 112:18
involved 86:24; 125:10;
140:24
involving 100:5
issue 16:1
issued 5:1; 80:6
issues 57:17; 118:15;
138:6
Item 28:2, 2; 111:22
Items 27:24
Itself 34:20; 43:24

J

Joaquin 65:10, 14
job 57:5; 86:17
jobs 120:21
John 138:18
joke 53:3
Judge 5:1
judging 144:14
judgment 17:23; 39:7;
133:14; 136:1
Jules 5:19; 43:14; 49:22;
123:8; 125:11, 12
July 50:4
jumps 112:7

K

keep 37:18; 66:22
keeping 22:18; 40:15
kind 74:1; 115:9
kinds 127:12
knowing 26:18; 43:11;
71:6, 8; 139:21
knowledge 5:7, 8; 10:16;
11:2, 15; 36:19; 37:1;
38:19; 39:5; 69:18; 82:23;
84:5, 9; 88:11, 13; 89:7;
103:20; 123:13; 130:13;
138:19
known 19:5, 6, 9; 36:14;
62:8; 64:5; 65:15; 66:1
knows 50:21
Kurtz 13:22; 15:5

L

L 4:2, 22; 29:14, 24;
30:15; 121:19; 122:11;
146:2
label 29:13; 45:13
lack 82:10; 99:24; 100:5,

15; 101:1, 2, 2; 111:6
lacking 26:17
laid 123:12
lake 118:14
land 39:1, 1
landscape 32:12, 17
language 36:12; 59:14;
62:12; 67:7; 81:17; 114:6
large 58:16; 66:16; 84:19;
90:23; 91:2; 114:12
larger 93:16, 18, 20
Last 53:1; 56:16; 89:14;
103:15; 105:23; 106:5, 8
latest 80:4
latitude 85:18; 86:6, 12,
13, 18, 20
lawsuit 4:13
lawyer 47:24; 57:1
lawyers 42:12
lay 41:7; 134:15
layer 57:1, 3
layperson 138:14, 15
lead 77:19
learned 112:22
least 5:9; 12:23; 14:11,
16; 17:4, 12; 18:12; 24:16;
28:7; 48:23; 49:3; 50:15;
55:11; 68:10; 71:21; 72:7;
73:2, 21; 91:16; 101:16;
106:4, 9, 11; 119:20
leave 47:19; 66:5;
100:18; 108:20
left 31:21; 32:6; 58:14;
59:14; 116:4; 130:3
legal 117:2; 121:23
lengthy 19:22
less 56:10; 68:1; 72:11;
75:2; 78:16; 82:19; 101:13
letters 12:17
level 12:17; 26:16; 28:12;
46:11; 47:10; 48:24;
53:17; 58:3, 5; 68:5; 74:12;
103:1; 136:22
levels 102:22
license 91:18, 22; 114:8,
10
licenses 114:12
lifting 60:2
likelihood 71:16; 129:6
likely 28:16; 48:4, 22;
71:4; 72:6, 20; 73:1, 20;
74:15, 16; 78:15; 119:18;
137:4; 142:21
Likewise 8:16, 16
limitation 129:5, 6
limitations 126:10
limited 99:23; 100:13, 24;
101:1, 1; 121:18; 125:24,
24; 127:9; 128:2, 3, 6, 7,
15, 18, 19; 129:14
limiting 101:8; 127:18
limits 43:5; 139:13
line 19:9; 45:20; 61:1;
63:13, 18, 22; 64:24;

66:20; 69:20; 139:7, 9, 16
lines 70:10; 139:23
linguist 39:17
linguistic 39:16
linguistics 39:7; 40:24
linked 46:3
list 50:7; 107:24; 108:17,
21; 109:8, 13, 16, 19;
110:19, 20; 111:20, 22, 23;
113:2, 10, 12; 141:14
listed 50:13
listen 7:4; 25:8, 9
listening 115:6
lists 108:5
literally 21:23; 31:2;
59:17; 63:12
literature 40:18; 62:20
little 32:1; 45:13, 17; 52:9;
59:22; 69:24; 70:7; 82:19,
19; 101:23; 106:21; 114:6;
133:20
live 45:3; 66:24, 24; 67:2;
115:9, 12; 117:9
lives 13:22
living 37:10
local 5:14, 15; 24:17;
26:6; 28:8; 51:2, 19; 87:21,
23; 88:5; 91:4, 12; 103:24;
130:21; 140:14; 141:17;
142:23
locate 86:3, 5, 17
located 14:14; 19:18;
45:18; 103:22
Locating 86:10
location 11:1; 14:1; 17:1,
2; 18:11, 22; 19:1, 7; 27:9;
38:22; 46:10; 48:5, 17;
54:4, 9, 21; 58:16; 59:12;
60:3; 63:4; 65:5, 20; 66:18;
68:9, 15; 70:11; 74:24;
75:11, 23; 76:1, 12, 13, 18;
77:17; 81:4; 82:5; 85:5, 17;
94:1; 104:4, 13, 21; 105:1,
3, 10, 15; 106:12; 120:11,
23; 132:6, 24; 136:17
location's 103:3
locations 8:9; 9:2, 5, 8,
12, 20, 20; 10:8, 15, 20,
24; 11:11; 21:7, 8; 46:6, 8;
47:3, 4, 7, 8; 48:6, 21;
49:4, 8, 13; 50:13, 15;
55:4; 90:17, 18; 103:12,
14, 17, 20, 23; 106:9;
107:12; 113:1
logic 105:14; 111:16, 17;
143:6, 6
logical 77:4
long 32:11; 58:15, 19, 20,
20, 23; 61:2; 63:5; 65:3,
12, 15, 16, 23; 66:4, 6, 21;
67:11; 68:8, 13, 19;
100:23; 125:13
long-standing 81:19
long-term 59:15; 69:4
longer 68:2; 95:23;
130:19

longitude 85:19; 86:7,
12, 13, 18, 20
Longley-Rice 36:4;
37:15, 22, 23; 38:23; 40:6,
9, 11, 12, 15, 21, 23; 41:8,
9, 12, 13; 79:22, 23; 80:2,
12, 17; 81:15, 20; 82:7;
94:15, 20; 95:20; 96:13;
97:1; 98:20; 117:10, 11,
20, 24; 118:2, 4, 5, 18, 18;
120:10, 11
look 13:13, 15; 29:18;
30:3; 31:8; 32:1; 33:21;
49:21; 50:6; 95:13; 107:17
Looking 44:2; 50:11;
90:9, 11
looks 31:13, 22; 137:10
loop 114:20
loose 114:6
loss 55:12; 56:5; 62:23;
139:15
losses 64:23
lot 22:5; 67:9; 77:17;
98:23; 138:6
low 51:14; 56:9; 67:20,
21; 68:4; 70:22; 73:15;
91:23; 92:10, 14; 97:4;
101:5
lower 75:16; 77:8
lunch 83:10; 143:9
luncheon 83:12

M

machine 36:8, 21
Madrid 6:19
maintain 87:20; 140:22
maintained 88:16
maintaining 141:1
majority 116:13; 117:3
makes 40:14; 105:1;
134:17
making 19:22; 39:3;
116:24; 133:6, 14; 134:19
man's 15:17
man-made 39:2
manipulating 113:10
manipulation 113:13
manner 11:4
many 20:24; 49:7; 50:14;
51:16; 62:21; 65:22;
72:18; 99:7; 101:5; 108:1;
116:10; 122:11, 12, 15, 18;
123:1; 126:20; 127:19;
128:8; 129:20; 143:3;
145:12
map 31:11, 12, 14, 15, 17,
21; 33:19, 20, 21, 23; 34:1,
11, 13, 19, 20, 23; 35:10;
37:3, 5, 7; 42:19; 43:21;
44:2, 3, 15, 17, 20; 45:7,
12; 47:13, 17; 85:18; 86:6,
11, 15; 89:18; 90:5; 99:12;
104:9; 105:11; 120:11
maps 37:4; 41:16; 42:5,

5, 7, 9, 11, 23; 43:1, 1, 8,
13, 14, 16; 48:16; 65:18;
84:16, 18; 85:1, 5, 12;
120:21
March 19:15, 16
margin 67:24; 78:6
mark 13:8; 23:11; 27:15;
29:23; 33:10, 23, 24; 38:3;
43:22; 44:15; 49:24
marked 13:9; 23:13;
27:17; 29:15; 30:1, 13, 16;
31:6; 38:8; 53:6; 99:12
market 116:13
marking 38:6
marks 107:21; 137:9
Maryland 35:10
massive 46:20
mast 60:18
masts 59:22
materially 105:11
matter 30:6; 52:16;
61:17; 104:5; 116:16, 20;
124:10, 11; 139:6
matters 118:3
May 4:24; 6:18; 9:15;
12:10; 13:19; 29:12;
30:21; 34:3; 36:20; 42:22,
22; 43:10; 44:12; 46:3;
49:1; 53:15; 65:2; 77:15;
98:1; 100:4; 109:15, 18;
116:4, 5; 121:10; 123:16;
130:20; 133:1; 137:24, 24;
138:1, 11; 141:16, 22;
143:21; 144:2, 8, 9, 13, 17;
145:1, 8, 11
Maybe 33:11; 101:23;
108:7
mean 5:16; 8:8, 20; 12:9;
14:3, 15; 19:6; 21:7; 31:11,
11; 32:7; 34:20, 21; 41:18;
45:1; 51:13; 69:10; 71:19;
73:23, 24; 74:1; 75:18;
77:2; 87:13; 101:2;
103:13, 17; 107:19; 115:2,
7; 121:7; 124:22; 126:4;
128:1, 4; 137:3; 138:15
meaning 17:8; 41:1;
44:10; 101:1
meaningful 58:8; 123:4,
5; 130:20
meaningless 93:22
meanings 62:22
means 47:20; 62:6
meant 32:7, 9; 62:18;
128:14; 138:18
measurable 19:9
measure 56:21; 60:9, 22;
63:12; 72:4; 75:15; 101:3;
106:24; 136:16, 17
Measured 54:1; 68:8;
70:13; 72:3, 24; 74:5;
78:13; 132:4, 23
measurement 23:2;
54:15; 56:13; 59:13;
60:12; 64:3; 69:10, 13, 20;
70:18; 71:7, 9, 21; 73:11,

18, 23, 11; 132:4, 6,
136:19, 20, 23; 137:8,
138:4
measurements 6:7, 9;
7:17, 24; 8:12; 9:3, 4, 12,
13; 10:14; 11:11, 14;
19:15; 20:13, 17, 18; 21:1,
14, 24; 55:24; 56:14;
57:10, 21; 60:6; 63:5; 66:8;
69:15; 74:1; 75:9; 76:21;
78:1; 98:18, 23; 99:14
measuring 20:6, 10;
54:21; 61:10; 63:11; 98:14
mechanical 86:17
median 54:8; 74:5, 23;
75:2
meet 71:16
megahertz 97:7; 137:12
member 114:21
memory 14:23
mention 104:6; 114:9, 13
mentioned 11:16; 60:16;
72:1; 97:13; 98:22;
115:14; 138:14, 21
merely 92:19; 93:13
meter 94:5
meters 82:18, 20
method 36:5; 40:6; 57:9;
76:24; 107:7, 16; 110:2, 4,
6, 13, 15, 16, 17
methodology 81:15;
111:12; 112:19
methods 57:20; 86:19;
106:16; 107:20; 124:2
Miami 5:2; 6:10, 14, 23;
7:18; 9:2; 10:9; 54:2; 55:8;
107:10
microvolt 73:17; 94:5;
132:24
mid-to-late 96:5, 7, 17
middle 99:21; 104:16
might 5:10; 12:4; 15:2;
26:16; 27:8; 33:7; 35:22,
24; 55:23; 58:2; 61:6, 23;
63:7; 65:18, 21; 66:16;
76:10; 78:8; 105:17;
107:7; 123:14
miles 57:19, 19; 65:12;
101:5, 16, 22; 102:17, 19
million 51:8, 10, 17;
123:5
mind 60:2, 4; 62:17; 77:7;
88:24; 89:1; 118:6
mine 59:19; 79:18
minimum 66:23; 67:14;
72:4, 18; 92:13; 94:4
minor 36:20
minute 19:6; 85:22
minutes 65:21; 66:20;
68:8; 70:16; 125:15
miss 94:24
mistake 119:4
mobile 21:13, 16, 24;
22:2, 11, 12, 21; 55:5;
57:16, 22; 74:4; 120:19

mobility 59:12
mode 42:16
model 37:15, 16; 40:7,
41:7; 79:23; 82:7, 12,
91:21; 94:15; 117:10, 11
models 38:20, 24; 41:2
modification 49:1
modifications 36:17
modifying 37:22
moment 13:13, 14;
16:20; 20:20; 23:22;
27:19; 29:17; 50:8; 89:1;
90:13; 115:4; 140:3
month 108:6; 131:21
more 28:16; 30:13; 47:1;
48:14; 52:23; 65:13; 71:9,
5, 15; 72:6, 20; 73:1, 6, 7,
20; 74:15; 78:15; 82:19;
97:22; 99:23; 100:8, 13;
101:23; 102:16, 19;
119:18; 124:23; 128:20;
136:19, 23; 137:4, 4;
138:16; 139:21; 142:21
morning 4:10; 118:22
morphology 40:8, 13;
79:20; 80:11, 16; 82:24;
83:5; 94:16
most 19:14; 47:23; 71:1;
88:4; 101:15; 113:17;
114:1, 17; 117:14, 18
mostly 22:8
mount 59:23
mouth 7:3
move 55:2
movement 58:13
moving 22:2; 58:9
much 9:13; 12:2; 15:9;
33:21; 43:23; 55:21; 84:
101:13; 136:12
multipath 138:2; 144:5
multiple 12:1; 65:18
must 17:21, 21, 22, 18;
64:4; 88:1; 91:21
mutually 62:5
Mylar 37:6
myself 30:8; 40:17;
74:18; 96:22

N

name 4:10, 20, 22;
115:15; 116:6; 144:22
named 13:22
namely 29:8; 140:10
names 13:17; 50:7;
124:23
narrowly 83:8
NBC 24:17; 98:9; 119:
140:21; 142:18
near 7:17, 24; 8:13;
11:11; 45:19; 78:2, 14;
90:6; 102:10; 107:12
nearest 71:11
neat 138:9

necessarily 66:23; 134:8
necessary 30:12; 87:20;
24:88:8
need 15:4; 17:1; 18:10;
25:1; 63:16; 64:15; 16; 19;
23:65:4; 66:5; 68:9; 14;
123:21; 131:5; 140:21
needs 64:12
negative 136:9
negotiation 116:11
neighbor 28:24; 131:3
neighbor's 29:1.8
neighborhood 15:14;
70:20; 74:23; 87:10;
137:16
neighborhoods 137:14
Nesbitt 5:1
Netlink 125:8
network 5:14; 15; 87:21;
103:24; 125:3; 131:23;
133:20; 140:11
networks 108:6; 119:12;
142:18
nevertheless 100:9;
130:20; 136:1
New 50:2; 108:6; 22;
109:17; 116:20; 121:24;
127:23
next 21:9; 22:24; 29:23;
38:3; 87:18
next-door 131:2
niece 50:11
nine 22:19
noise 100:24; 101:1;
102:22; 103:1; 6; 125:24;
128:2; 7; 9; 19; 23; 129:6;
9
None 26:22
normal 31:22; 32:5; 8;
42:15; 74:21
North 4:23; 8:2; 14:15;
15:5; 31:21; 24; 32:6; 18;
98:24; 118:14
northeast 32:23
northwest 44:20; 45:4
notation 30:11
note 30:7
noted 24:23; 25:16;
102:12
nothing 26:19; 20; 21;
27:6; 9; 125:8; 130:13;
140:1
November 50:4; 51:7; 11
Nth 111:22
number 7:20; 36:16;
47:21; 71:20; 72:2; 82:11;
88:24; 89:1; 91:24; 103:2;
105:17; 109:22; 110:24;
111:8; 112:8; 126:7;
134:2; 138:1
numbers 8:4; 47:15
numerical 19:23
numerically 128:8
numerous 94:18; 95:10;
107:20; 127:17

O

object 14:2; 24:22; 25:5;
60:8; 76:11; 89:22; 24;
93:22; 100:17; 110:8;
111:1
objecting 135:5
objection 24:23; 25:16;
111:6; 123:11; 128:24;
130:23; 132:8; 135:3;
136:3; 142:24
objectionable 144:18
objective 23:2; 47:14
objectively 48:2
objects 55:17; 18; 137:15
observation 67:18; 69:4
observations 59:15;
67:9
observe 58:15; 19;
65:18; 68:1; 126:7
observed 65:16; 74:23;
78:7; 94:21; 97:2
obtain 87:21
obvious 35:6
obviously 13:5; 50:20
occur 102:20
OET 81:13
off 20:1; 33:15; 79:20;
82:21; 22; 92:4; 5; 8;
109:6; 11; 115:11; 133:24;
143:12; 13
offends 32:4; 5
offer 108:12; 135:1
offered 134:22
offers 113:9; 140:9;
142:10
offhand 58:20; 92:2;
98:21; 125:12
office 13:2; 3; 31:18; 20;
86:5; 10
offices 86:14
often 114:22
old 69:21; 130:2
old-fashioned 22:3
OLSON 4:9; 11; 5:21; 7:3;
8:23; 13:7; 23:10; 21;
24:23; 25:1; 8; 13; 26:13;
27:3; 14; 29:12; 22; 30:13;
31:4; 12; 32:3; 33:5; 11;
14; 34:7; 38:2; 39:13; 44:8;
47:22; 50:18; 53:3; 56:16;
24; 60:13; 69:12; 72:17;
74:1; 75:21; 76:3; 13; 18;
77:6; 82:21; 83:10; 84:2;
13; 23; 87:16; 89:21; 24;
92:4; 6; 94:24; 95:4; 98:1;
108:7; 15; 109:4; 8;
110:11; 111:8; 112:12;
115:4; 8; 120:14; 123:15;
19; 124:14; 125:15; 18;
128:24; 130:23; 132:8; 12;
134:1; 22; 135:3; 7; 13;
136:3; 138:13; 141:15;
142:12; 143:14; 145:19
once 118:14; 126:22

one 6:8; 7:5; 12:2; 19:4;
21:8; 14; 18; 19; 19; 28:20;
30:13; 31:22; 22; 36:3;
37:1; 16; 40:1; 4; 41:4; 12;
23; 46:18; 47:22; 49:13;
50:11; 55:9; 15; 23; 56:5;
6; 57:22; 58:2; 64:6; 11;
12; 65:18; 19; 66:15; 16;
67:8; 68:1; 71:14; 73:17;
75:2; 78:13; 84:24; 85:1; 4;
12; 17; 87:19; 94:5; 97:10;
101:3; 104:24; 105:6;
106:13; 107:6; 109:22;
113:5; 114:10; 22; 115:14;
116:14; 16; 118:6; 123:4;
126:8; 12; 14; 15; 21;
127:8; 136:1; 16; 139:7; 8;
140:19; 20; 143:5; 145:16
one-page 23:11; 38:4
ones 41:18; 68:24
oneself 55:16
only 5:7; 6:9; 13; 7:1;
15:15; 28:1; 35:20; 58:14;
59:14; 63:6; 72:15; 81:8;
97:6; 105:3; 107:6;
115:12; 126:8; 21; 127:19;
143:16
onto 56:2
open 66:19
operating 42:16; 116:13
operative 130:19
opinion 11:19; 12:7; 23;
14:9; 24:13; 26:5; 11; 28:5;
15; 39:17; 50:24; 51:16;
24; 58:8; 67:7; 71:3; 73:20;
74:11; 100:12; 22; 108:13;
110:10; 119:18; 120:6;
133:13; 134:9; 135:24;
136:12; 138:7; 143:5
opinions 108:16; 131:15;
16; 134:4
opposed 21:8; 8; 29:9;
32:12; 93:9; 98:8; 115:9;
128:9; 18; 22; 129:8;
132:15
option 37:21; 59:14
options 37:14
oral 115:5; 12; 116:24;
118:4
order 4:24; 21:10; 32:18;
37:5; 38:20; 24; 59:15;
63:15; 72:19; 81:17;
87:20; 101:22; 111:20;
112:1; 5; 120:23; 122:21;
21; 133:17; 142:9
organization 114:22
orientation 32:12; 17
original 5:20; 21; 6:1; 15;
7:9; 13:11; 30:18; 33:20;
23; 34:1; 45:10
Others 63:7; 97:12
otherwise 18:3
out 27:12; 34:5; 35:17;
49:16; 19; 58:6; 62:24;
66:16; 72:16; 92:17;
93:12; 104:23; 106:5; 21;
107:22; 108:16; 111:22;

116:22; 144:23
outboard 40:11
outdoor 11:21; 12:21;
14:10; 18; 15:8; 11; 18; 20;
16:11; 17:3; 88:8; 119:13;
142:19
outlined 72:13; 112:20;
113:9
outside 102:8
over 4:16; 20:13; 21:1;
20; 37:6; 44:12; 45:1; 52:5;
7; 56:12; 14; 58:15; 61:2;
63:3; 5; 65:12; 22; 66:12;
67:15; 69:5; 70:15; 71:2;
76:3; 77:14; 23; 78:10; 11;
24; 91:17; 92:23; 94:6;
108:2; 24; 109:9; 116:4;
119:9; 130:3; 22; 137:17;
140:10; 14
over-the-air 130:8;
140:22; 141:2; 12; 23
overall 55:12; 111:3
overcome 90:20
overturn 117:3
own 17:19; 29:9; 37:16;
40:15; 88:18; 91:1; 4;
97:15; 17; 18; 98:8; 130:1;
132:16
owned 10:4; 122:7; 10
owner 121:21
ownership 121:14; 16;
18; 122:4

P

P 36:11
P.C 121:20; 122:8; 12; 14
p.m 83:13; 84:1; 145:22
page 13:19; 21; 30:14;
31:9; 10; 12; 38:11; 13;
50:12; 89:14; 94:14; 95:6;
99:18; 20; 21; 102:22; 22;
103:6; 6; 10; 104:14; 16
Pages 53:7; 54:1
pains 146:4
panacea 143:20
paper 7:7; 32:11; 14; 17
Paragraph 27:22; 28:20;
103:11
parameters 34:22;
36:23; 42:20; 129:19
paraphrased 95:1
pardon 18:2; 47:7; 48:11;
50:17
Parish 118:13
part 53:20; 114:2; 18
particular 16:8; 11; 17:4;
12; 18:11; 13; 21; 23; 24;
19:1; 39:10; 60:22; 61:12;
63:3; 68:14; 69:16; 71:20;
74:6; 75:22; 76:7; 12;
85:17; 86:20; 98:17;
100:9; 103:2; 3; 17; 107:1;
109:7; 116:12; 119:6;
125:23; 131:20; 141:5;

142:4
particularly 100:22
parties 97:23; 98:2;
113:14
partner 116:13; 117:2; 3
Partners 4:5
parts 44:4
party 98:6; 113:11
passed 74:3; 122:3
past 52:5; 7; 66:12; 70:15
pasted 37:6
path 56:4
patrols 97:5
pattern 57:11
pay 112:22; 131:21;
133:17
paying 99:10
PBS 119:12; 142:18
PCs 36:13
penalties 145:15; 146:4
people 10:13; 18:3;
106:5; 109:5; 8; 10; 115:6;
126:7; 127:12; 128:8;
129:3; 130:19; 131:5;
134:15; 143:21; 144:2; 8;
9; 13; 17; 145:1; 8; 12
per 35:15; 94:5; 131:21
percent 46:8; 10; 47:6; 9;
13; 13; 18; 18; 48:12; 17;
17; 22; 23; 52:6; 56:5;
67:24; 74:15; 82:10; 10;
12; 85:5; 10; 87:11;
103:15; 104:17; 21; 22;
105:3; 10; 10; 14; 16; 23;
106:5; 12; 120:11; 24
percentage 49:11; 51:1;
52:1; 3; 7; 14; 87:6; 88:10;
96:19
percentile 104:8; 10; 13;
105:20; 24
percentiles 104:4
Perfectly 117:5
performed 107:11;
137:10
Perhaps 17:18; 92:3;
108:1; 126:20
period 58:15; 20; 23;
61:2; 63:5; 65:4; 13; 67:15;
96:3; 108:2; 24; 109:7; 9
perjury 146:5
permitted 16:2
person 34:16; 54:23;
120:7; 129:7; 133:13; 22;
134:10; 138:16; 19; 140:9;
141:5
personal 144:14
personally 31:14; 15;
62:13; 86:23
perspective 111:16
persuade 80:23
persuasive 137:4
pertinent 22:13
phenomena 55:6
phenomenon 88:14

phrase 16:17; 22:24;
39:10; 51:13; 72:10;
75:12; 81:10; 111:19;
112:18; 116:14
phrased 83:9
phrasing 32:4; 48:9
physically 61:16
pick 89:8
Pickering 4:11
picture 5:17; 17:22; 18:2;
23:4; 103:7; 119:11;
130:8; 16; 132:5; 133:1;
134:24; 136:10; 24;
137:23; 138:22; 139:3; 5;
12; 20; 142:4; 8; 17;
143:16; 22; 23; 144:14;
145:1; 5
pictures 144:3; 10
piece 32:10
pieces 32:14
pin 22:2; 71:19
Pittsburgh 6:7; 8:16; 9:9;
10; 10:9
pivoted 118:14
place 19:4; 63:3; 91:16
places 95:2
Plaintiffs 4:4; 13
plan 33:16
plans 124:9
plausible 91:7
play 8:3
please 4:21; 20:23; 27:2;
4; 15; 31:9; 56:17; 73:12;
89:24; 92:21; 120:15; 20;
122:24; 128:12
plenty 91:9
plotted 37:6
Plus 41:8; 9; 13; 57:15;
79:23; 95:20; 96:13;
117:11; 24; 118:2; 5; 18;
120:11
point 44:15; 45:19; 47:2;
67:5; 9; 17; 18; 86:18;
103:5; 104:23; 106:1; 21;
135:10; 136:18; 137:18
point-to-point 46:21
pointed 145:3; 5
pointing 116:22; 141:13
points 46:22; 47:3; 48:11;
69:4; 84:19; 90:3; 5; 6; 16;
106:9
police 22:21; 97:13
Pomeroy 121:21; 122:4
poor 143:15
population 91:1; 105:16;
107:22
portion 19:24
portions 20:3; 4; 65:14
portrait 32:11
posited 129:7
possibilities 113:12
possibility 10:18;
113:10; 15; 135:18; 20;
136:15

possible 12:8; 22; 14:10;
16; 17:2; 56:13; 60:16;
84:8; 86:11; 95:12; 12;
100:7
post 40:11
Postprediction 99:14
potential 5:5; 10
potentially 106:24
Potomac 44:16; 18
power 55:1; 56:6; 73:10;
11; 94:3; 126:9; 11; 13; 16;
127:11; 15; 22; 129:15
powers 127:2
practical 61:9; 17;
137:23
practice 21:12; 22:19;
114:20
practicing 61:18
practitioner 114:23
precise 65:3
precisely 47:19; 86:11;
128:4
precision 67:5; 68:20
preclude 22:17
precluded 5:11; 12
precludes 59:12
predict 38:21; 40:1
predicted 43:24; 44:5;
21; 24; 49:12; 65:10; 82:9;
84:10; 14; 20; 91:16; 19;
20; 102:8; 106:11
prediction 37:5; 20;
91:21
predictions 36:18; 24;
37:14; 22; 94:21; 97:2;
98:20; 120:22
predicts 46:7; 47:5;
48:20
premise 101:17
prepared 6:15; 22; 7:9;
30:5; 8; 52:16; 55:7
present 17:11; 18:12;
28:16; 53:14; 63:2; 142:22
presented 15:13; 18:3;
40:14; 120:4; 143:4
presently 121:4
presorted 111:23
pretty 9:10; 59:10; 62:17;
67:8; 97:3; 120:22; 136:12
prevented 77:4
prevents 26:18
Previously 106:23;
112:12; 120:10
PrimeStar 124:23
PrimeTime 5:4; 7:18; 8:1;
13; 9:21; 10:7; 17; 24;
11:12; 13:18; 18:13;
41:17; 42:12; 43:2; 5; 16;
18; 49:7; 11; 50:2; 51:6;
17; 103:18; 21; 106:17;
107:12; 108:1; 5; 17; 22;
109:14; 17; 119:7; 124:5;
17; 131:22; 134:20; 23;
139:24; 140:6; 9; 20;
142:10; 145:10

principal 91:17; 94:6
principally 100:24
Prior 114:17
probabilities 81:4;
84:22; 104:22
probability 47:14; 48:13;
67:21; 105:3; 15; 120:12;
138:8
probable 74:11; 15
probably 56:9; 67:20; 23;
24; 68:16; 78:10; 82:16;
96:8; 97:3; 7; 102:2;
105:19; 125:14; 137:14
probative 136:19; 23;
137:3; 144:11
problem 11:23; 24; 12:2;
3; 6; 15:3; 39:15; 18;
40:24; 41:5; 46:15; 17; 19;
47:12; 49:2; 54:22; 57:7;
12; 58:2; 91:5; 97:20;
100:4; 5; 10; 14; 101:6;
102:7; 106:21; 110:3; 5;
23; 111:12; 113:4; 114:19;
129:1; 136:13; 14; 137:6;
16
problems 5:22; 57:13;
98:11; 111:15; 112:19;
126:9
procedure 33:16; 57:15;
61:9; 64:3; 7; 10; 86:17
procedures 59:5; 8;
68:23; 69:8; 11; 13
proceed 62:23
proceeding 78:22; 24;
114:3; 8; 9; 11
PROCEEDINGS 4:1;
114:24
process 59:13; 62:16;
66:21; 79:9; 116:11
processing 122:2
produce 85:5; 12
produced 37:11
product 36:13
production 34:21
products 36:16
professional 11:19;
12:7; 23; 14:9; 24:13; 26:4;
11; 28:5; 48:8; 73:20;
108:12; 111:6; 112:17;
114:21; 121:6; 20; 122:2;
134:3; 9
proffered 108:9
program 34:14; 35:3; 6;
7; 19; 21; 36:4; 9; 37:13;
39:21; 24; 41:11; 79:21;
80:12
programmers 36:11
programming 87:21;
140:21
programs 35:22; 36:21;
140:11; 12; 13
project 98:12
promised 117:4
promulgated 69:9; 14
proof 78:11; 12

propagation 34:13; 19;
23:35; 12; 13; 15; 18; 36:5;
24; 37:14; 20; 38:19; 23;
40:2; 6; 6; 10; 41:2; 16;
42:6; 9; 11; 43:8; 16; 44:1;
5; 21; 46:1; 56:4; 79:13;
14; 81:6; 83:2; 7; 84:10;
99:12; 117:21; 118:1; 19
proper 75:8; 137:22
properly 19:10; 88:11;
132:15; 136:20; 22; 137:8;
9; 139:8; 144:5; 6
proportion 20:12; 16
proposed 38:22
proprietary 97:19; 24;
98:1; 6
provide 23:6; 78:3;
113:11; 115:24; 117:4;
121:17; 127:5; 134:11;
136:2
provided 94:6; 118:15;
134:21
provides 113:12
providing 61:21; 133:14
proximate 70:18
public 22:21; 54:17;
71:12; 138:18
published 69:5
punches 32:2; 19
purchase 140:21
purchasing 141:1
purport 77:12
purpose 20:17; 18; 21;
21:13; 22:13; 75:10;
80:18; 111:2; 112:12
purposely 58:6
purposes 8:21; 22:23;
24:3; 6; 10; 25:23; 43:4;
64:2; 17; 80:19; 82:8;
87:13; 17; 97:16; 18;
111:3; 112:10; 137:24
put 7:3; 32:16; 19; 39:7;
58:22; 59:17; 60:17;
61:13; 76:14; 17; 92:17;
93:12; 98:19; 100:7;
112:5; 126:2; 11; 131:4;
133:24
putative 120:7
putting 62:6; 64:1;
108:11

Q

qualification 33:3
qualifications 111:7; 10;
124:1
quality 17:22; 18:2;
103:7; 119:11; 130:8;
132:5; 133:1; 134:24;
137:1; 138:23; 139:3; 5;
12; 17; 20; 142:4; 9; 17;
143:15; 144:10; 14; 145:2
quantify 72:22
quantity 52:14
questionnaire 135:23

quibble 18:19; 92:25
quibbling 17:6; 35:1
quicker 144:23
quickly 55:15; 88:21;
109:11
quite 15:1; 40:20; 45:19;
52:21; 59:13
quotable 131:5
quote 94:23; 107:21;
131:2; 137:9
quoted 39:12; 95:2

R

R 13:22
rabbit 143:19; 23
rabbit-ear 141:7; 143:10
radiated 94:3
radiation 56:1
radio 22:21; 21; 40:2; 3;
94:16; 97:13; 114:14;
120:20
RadioShack 59:22;
60:18
raised 17:15
raising 127:13
ran 98:13
random 107:15; 20;
111:21; 24
randomly 107:12; 21; 2;
109:21; 110:24; 112:8; 2
range 16:21
ranges 144:15
rankest 122:23
rather 14:24; 57:1; 129;
133:13; 136:8
read 4:24; 24:20; 21;
27:3; 5; 28:2; 38:10; 39:1
44:8; 9; 50:18; 19; 56:16;
18; 70:4; 92:22; 95:5;
102:12; 118:24; 119:3;
120:14; 16; 131:1; 141:1
146:3
readers 119:3
reading 19:11; 32:8;
81:13; 104:15
readings 21:22; 22:20;
75:2
reads 31:22
real 54:22; 24; 57:7;
61:10; 65:7; 91:8; 101:21;
127:8
realistic 23:19
realities 94:21
reality 23:16; 97:2
realize 42:16; 55:20;
65:2; 96:22; 120:20
realizing 36:20; 70:17
really 8:20; 21; 15:11;
36:2; 41:3; 44:2; 45:9;
46:24; 57:5; 14; 58:11; 1
61:6; 65:7; 67:4; 78:20;
81:10; 82:16; 84:7; 92:2;
101:13; 106:2; 111:21;

122:16, 20
reason 49:5; 63:21; 77:9;
80:15; 123:7; 130:16
reasonable 105:22;
131:8; 133:4
reasonably 14:6, 8; 61:4
reasoning 104:3
reasons 22:16, 17;
121:23; 136:14
rebuttal 6:22; 29:24;
30:5, 10; 33:17; 41:21;
42:6; 84:16
recall 6:6; 8:4, 8; 25:19;
20:42:3; 57:13; 60:18;
65:11; 82:9, 16; 87:1, 3;
89:15; 92:2; 98:7, 10, 12;
18, 21; 107:2, 13; 118:20;
120:19; 125:12
recalling 115:15
receive 5:13, 15, 16;
11:20; 12:4, 8, 23; 14:11,
16; 15:21; 17:3, 8, 9, 19;
18:10; 43:6; 46:8; 47:8;
48:6, 22; 49:2, 6; 57:24;
119:11; 128:9, 10; 129:21;
130:7, 21; 133:18; 142:17
received 18:2, 4; 58:6;
132:5; 137:17, 19
receiving 12:22; 15:6;
16:10; 17:16; 18:16, 18;
19:4, 7, 8; 24:15; 44:21;
58:9; 62:18; 64:20; 70:5;
82:14; 103:12, 14; 130:16;
132:14
recent 114:1, 17
recently 19:14; 81:14;
102:13; 113:17; 117:14,
18
reception 15:3; 44:24;
103:24; 105:19; 136:13,
15; 138:2, 9
recess 33:13; 83:12;
125:17
recitations 19:22, 23
Recognizing 94:14
recollect 134:5
recollection 6:12; 7:2, 5;
81:9; 96:18
recommend 104:12
recommending 104:21
record 4:21; 6:3; 25:14;
17:33:15; 37:18; 39:14;
49:23; 56:8; 82:21, 22;
92:4, 5, 6, 8; 114:2;
115:13, 20, 22, 24; 116:23;
118:24; 119:4; 120:1;
143:12, 13, 14; 146:6
recorded 68:24
recorders 22:2
rectangle 45:21
red 35:9, 11; 43:24; 46:6;
47:4; 48:6, 12, 21; 49:8,
13; 89:17; 90:6, 18
redirect 138:11, 12
refer 32:5; 95:8; 102:22
reference 45:19; 103:12;

104:17; 117:1
referenced 131:20
referred 36:7; 41:19, 20
referring 6:6, 9; 7:12;
16:5; 18:14; 35:13
refers 23:2; 59:10
reflect 46:2
reflected 34:23; 35:18;
46:1
reflects 13:17; 47:13
refresh 6:11
regard 9:7; 16:7, 24;
17:15; 18:11; 23:3, 16, 17;
29:2; 75:23, 24; 81:5
regarding 5:13
regardless 19:1; 20:17;
21:13
region 58:11; 74:20
regular 57:11
regulation 19:17
regulations 20:2, 5;
91:15
Reiterating 28:9
relating 125:5
relationship 70:18;
121:11
relative 64:22; 73:17;
132:23
relatively 65:20
release 98:3
relevant 121:12
reliable 78:3
relied 96:13, 24
remain 126:17
remarkable 47:23
remember 80:4; 97:8, 12,
12; 116:6; 130:11
remote 71:18
remotely 132:13
remove 49:2; 59:15;
114:11
removed 55:17
removes 55:15
repeat 29:5; 60:14;
120:13; 143:3
repeatedly 90:2; 112:16
repeating 96:22
repetition 94:23
rephrase 12:5
replicate 79:9, 14; 80:8;
82:8
replicating 80:19
report 5:18, 20, 21; 6:1, 4,
16, 22; 7:9, 13, 15; 8:7, 11;
11:7; 29:14, 19, 24; 30:5,
10; 33:18; 41:19, 21; 42:6;
49:22, 23; 50:2, 14; 52:15,
18; 53:6, 20, 24; 70:12;
84:16; 94:13; 95:7, 15;
96:10, 23; 99:18, 21;
102:21; 103:10; 104:12,
20; 106:15; 115:1, 24;
128:21; 134:24
reported 115:19, 20

reporter 13:7; 23:11;
27:15; 29:12, 22; 38:3
reports 31:2; 54:7
represent 13:16; 27:20;
90:16; 137:18
representation 8:10;
27:24
representative 53:13;
119:10
representing 4:12
represents 47:17
reproduced 38:12
request 97:16; 101:20;
123:8
required 71:17; 82:23;
83:5; 88:5; 91:16; 93:12,
17; 108:5
requirement 26:10
reside 49:12
residential 137:13
respect 9:1; 26:23;
28:20; 51:21; 54:4
respond 28:10; 42:21;
61:7; 114:3
responding 39:19;
81:21; 83:8
response 19:19; 37:8;
78:20; 95:14; 101:14;
134:21; 135:23; 136:6, 7
restate 20:22
resulting 23:4
results 70:16
reuse 127:7
reuses 127:17
review 7:7; 23:23; 27:20;
77:15
reviewed 5:18; 6:3; 7:8;
43:15; 52:15
Reviewing 6:5; 13:14;
23:24; 27:23; 38:10
revisions 36:17
revocation 114:8
RFCAD 34:14; 35:19, 21;
36:4, 14, 16, 22; 37:7, 13,
19; 38:4, 19; 39:21, 24;
40:1, 4, 11, 22; 41:11;
84:3, 9
RICHARD 4:2, 22; 29:14,
24; 30:15; 36:11; 121:19,
21; 122:4, 11; 146:2
Right 6:21; 12:15; 16:22;
23:24; 25:5; 31:7; 42:20;
46:14; 51:12; 56:2; 72:17;
73:16; 74:20; 76:19;
82:18; 84:17, 23; 85:12;
91:10; 96:17; 99:16;
102:5; 106:12; 109:17;
116:2, 17, 20, 21; 124:14;
129:17; 136:11; 137:2;
144:7
right-hand 33:4
River 44:16
Road 13:22; 14:4, 7, 16;
15:5; 54:17; 56:3, 22;
71:12

Robert 52:16
Roger 31:17; 34:17;
35:21; 37:9, 10; 42:17, 18
roof 60:23; 76:19; 89:3;
103:3; 130:6
rooftop 11:21; 12:21;
14:10, 18; 15:8; 16:2, 12;
17:3, 11; 18:13; 24:16;
26:6, 16; 28:8, 12, 22, 23;
53:17; 57:15; 58:3, 4, 8;
59:11, 17, 19, 21; 60:3, 17;
61:12; 62:7, 13; 63:3, 10;
64:2; 65:5; 69:21; 71:5;
72:21; 73:2; 74:12; 75:7;
20; 76:7, 14, 15, 16; 77:1,
13; 78:4; 87:20; 88:12, 15;
89:2; 119:13; 130:3, 19;
141:6; 142:19, 23; 143:17,
19, 22; 144:2, 4, 6, 20;
145:3, 5
rooftops 50:16; 51:4, 18;
69:16
room 115:5
roughly 7:21; 10:8, 15;
20:24; 21:17; 87:6; 88:22;
96:5; 97:6, 7; 122:18
rule 20:18
rules 4:16; 57:10, 21;
88:2; 92:9; 93:7, 11
run 21:9, 16, 21; 22:12;
36:22; 55:5; 66:19; 73:24;
74:4, 6; 75:3
running 31:19
runs 20:6, 9, 14; 21:13,
24; 22:2, 11, 19; 32:11;
57:16, 22

S

safety 22:17, 22; 54:24
Saint 118:13
same 9:7, 14; 13:5; 16:20;
36:2, 19, 22, 23; 51:21, 23;
84:24; 85:6; 112:12;
125:13; 126:17, 17, 17;
133:16
sample 107:22; 113:5
samples 21:19, 20
San 65:9, 14
Satellite 76:1; 119:10;
124:21, 22; 125:6
satellites 46:2
satisfactory 52:9, 12;
62:5
save 27:22; 108:7
saw 6:21, 23; 45:10; 87:3
saying 41:9; 45:14;
48:16; 109:1; 127:13;
143:18
scale 45:7
scaling 86:17
scanned 24:1
scans 21:15
scatter 137:15
scattering 55:13, 17

school 143:6
scientific 26:19, 20, 24
scientifically 120:4
scope 107:9
screen 144:18
second 12:3; 13:20; 92:4,
132:2, 12
second-guess 15:12
secondarily 40:17
secondary 56:3
Section 19:18; 20:2;
23:1; 92:8; 106:19
Seeing 43:1
seem 87:1
seems 61:3
selected 107:12; 110:19;
111:20; 112:3, 8
selecting 107:22; 110:2,
7; 112:6
selection 107:16; 110:4,
16, 17; 111:24; 112:11
semiretired 13:3
send 108:5
sense 5:16; 65:3; 95:2;
127:9
sentence 95:5
sentences 38:17; 39:11,
13
separate 49:24
sequence 29:23; 38:3;
110:24
series 22:24; 143:8
served 94:7
service 20:8; 26:12; 43:6;
105:3, 23; 106:6; 126:5;
133:14; 134:11; 135:1;
136:2
services 12:1; 97:13;
121:17, 19; 122:1, 5, 8, 10,
14, 17; 133:20
SESSION 84:1
set 21:21; 26:2, 22; 28:19;
57:9, 20; 66:6, 7, 7, 20;
69:7, 10, 13; 72:16;
131:22; 137:24; 139:10,
17, 20; 141:17, 21, 22
sets 25:21; 95:17, 18;
97:3; 98:5; 131:13; 139:24
setting 66:2; 85:5
settle 67:12
seven 113:20
several 54:1; 111:15
shadows 15:2
Shall 83:10; 94:1
sharing 127:20
Sheet 54:5
shop 37:10
shot 45:10
show 5:24; 19:24; 89:13
showing 43:24; 45:17;
84:16, 18
shown 44:5, 20; 48:6, 21;
49:8, 13; 53:18; 87:2

side 33:4; 138:20
Sierra 117:1, 18, 19
sight 65:20
sign 5:12
signal 10:14, 23; 11:10;
20:12; 8:23; 14:11, 16;
15:6, 22; 16:10, 17; 17:4,
9, 11; 18:12, 21; 20:6, 10,
12, 24; 23:2; 24:15; 26:5,
15, 24; 27:8; 28:6, 12;
40:16; 43:7; 44:1; 46:9;
47:8; 48:7, 14, 22; 49:3;
50:15; 51:1, 18; 53:16;
54:8, 21; 55:12, 13, 14;
56:5; 57:24; 58:5, 7, 10;
60:22, 24; 61:11; 62:1;
63:2, 4, 9, 11, 15, 22; 64:9,
18; 65:4, 11; 66:3; 67:18,
19; 68:8, 10; 69:15, 22;
70:13, 20, 21; 71:1, 4, 17;
72:3, 6, 20, 23; 73:2; 74:5,
12; 75:8, 13, 15, 22; 76:6,
22; 77:1, 13, 18, 22; 78:1,
3, 9, 16; 84:20; 90:20;
91:17, 19; 92:17, 19;
93:12; 94:17; 95:8; 98:23;
99:24; 100:5, 8; 101:1, 2,
3; 103:8; 106:10, 11, 24;
119:20; 129:22; 131:23;
132:3, 23; 134:16, 24;
135:17, 19; 136:15, 17, 18,
19, 23, 23; 137:8, 15, 23;
138:6, 22; 139:2, 4, 12, 19;
142:22; 144:11, 15, 19
signals 12:4; 45:23;
62:15; 65:13; 89:9;
131:10, 23
signator 114:24
signed 30:21; 108:23;
109:9, 14; 131:3
significance 45:12
significant 56:11; 67:22;
69:3; 94:8; 102:7; 130:14
signing 130:2
similar 16:18; 78:19;
85:1; 143:3
simplified 119:24
simply 4:17; 19:24;
37:11, 18; 41:11; 42:23;
45:24; 48:1; 77:7; 86:16;
93:17; 95:22; 111:22;
124:2; 126:8; 132:10;
141:16, 21; 145:8
single 33:20
single-point 67:8
sit 66:16
six 22:22; 59:19, 20
sketched 111:13
Skinner 31:17; 34:17, 18;
37:9; 42:17
slightly 29:7
societies 121:6
software 79:13, 17;
80:17; 84:3, 9, 24; 85:4,
16; 86:21
sole 121:21
solve 12:5

somebody's 77:12
somehow 34:4
someone 13:22; 30:8;
31:18; 39:7; 127:24
something 6:17; 39:9;
44:15; 48:2; 57:10; 80:4;
81:13; 111:20; 114:15;
121:8; 140:9
somewhat 102:16, 19
somewhere 15:14;
87:10; 123:6
son 31:19; 39:21, 23;
40:17; 121:13, 21
soon 34:2
sorry 14:14; 32:4; 73:7;
85:24; 102:1; 114:12;
115:14; 143:2
sort 9:14; 36:8; 41:7;
55:2, 9; 57:19; 70:10;
74:21; 86:17; 126:12;
134:17; 137:12; 143:19;
144:21
sound 82:18; 138:1
sounded 52:24
source 56:1; 60:1; 105:6
sources 40:15
space 19:7; 61:17;
126:22
Spain 6:20
speak 77:23
speaking 54:23; 56:1;
111:16; 115:6; 143:5
specific 44:22; 46:22;
47:3, 4, 7; 48:5, 21; 49:8,
13; 57:23; 62:4; 74:24;
84:19; 138:19
specifically 64:20;
97:23; 98:13
specified 12:17; 132:13
specify 75:10; 108:19
specious 15:21
spectrum 100:23;
125:23; 129:18
speculate 66:22
speculation 15:9
speech 25:9, 9
spiral 32:24
spit 32:23
sports 140:12
spot 27:7
spring 6:13
square 57:18, 19
standard 37:6; 54:12;
64:7; 75:2; 79:22; 80:12,
17; 117:10; 132:15
standardized 64:8
Standards 68:17; 69:6;
80:5; 144:9, 13, 14
start 25:21; 66:8; 69:12;
76:3; 125:22
started 111:18
starting 36:9; 109:21;
110:24; 112:8
starts 95:6

state 4:20; 53:11; 56:8;
73:4; 75:18; 77:10; 94:14;
99:18; 131:15
stated 49:4; 51:7; 67:6;
68:20; 71:10, 14; 80:1;
96:5
statement 5:13; 8:5;
28:24; 49:2; 58:7; 91:7;
100:1; 107:3; 127:22;
128:6, 7, 18; 136:13;
139:11
statements 24:12; 25:22;
26:3; 27:11; 28:4, 10; 39:4
states 7:16; 8:11; 9:3, 8;
11:1, 12; 51:9, 10; 84:12,
13; 85:2; 100:23; 126:6;
127:8, 16
stating 28:21; 48:2;
108:8; 126:3
station 5:14, 16; 12:11;
14:14; 16:11; 17:5, 13;
26:7; 28:8; 45:17; 48:14;
51:2, 19; 84:11; 91:23;
92:14; 99:22; 100:9, 10,
15; 101:6, 10, 10; 118:19;
119:21; 126:8, 14; 127:2,
3, 11, 14, 23; 128:21, 23;
129:4, 15, 21; 140:14;
141:18; 142:23; 145:4, 6
Stations 4:5; 18:15;
24:17; 42:11; 43:2, 8, 17;
51:22; 68:4; 78:23; 79:4,
10, 15; 80:9; 81:5, 7, 24;
83:2, 7; 85:2, 6, 9, 14;
87:21, 23; 88:6; 91:1, 4,
12, 15; 92:17; 93:11; 97:8;
98:18; 99:23; 100:13, 14;
101:7, 12, 15; 102:20;
103:24; 126:6; 127:13, 20;
130:15
statistical 108:13
statistician 48:9; 105:22;
106:1; 108:9; 110:9;
112:17
statistics 48:10; 111:11
statute 26:10; 75:20
stay 68:9, 14
Steve 41:24; 89:21;
123:20, 22
stick 59:23
sticker 34:5
sticking 112:15; 133:16
Still 75:4; 89:2; 130:6;
131:10; 133:16
stop 74:14; 76:10
stories 131:6
straight 80:2; 122:5
straightforward 86:16
Street 4:23; 54:16; 55:8,
16; 70:13; 71:11, 22; 72:5,
24; 73:19, 23; 78:2, 14;
138:19
strength 23:3; 26:15;
27:8; 40:16; 48:15; 49:3;
53:9, 16; 54:8, 21; 55:12,
13; 58:7; 63:9, 11, 16;
67:18; 70:20, 21; 71:1, 4,

17; 72:7; 74:5, 13; 77:13;
23; 84:20; 91:19; 94:5, 17;
95:9; 98:23; 99:24; 100:5;
132:3, 23; 135:1, 19;
136:20, 24; 137:8; 138:6,
22; 139:2, 5, 13, 19;
144:11, 15
strengths 65:11; 77:18
strictly 121:18
strike 11:9; 12:10; 26:2;
42:5; 89:16
strong 69:2, 6; 78:9;
90:20; 106:1; 135:18, 19;
136:11, 15, 17
stronger 72:23; 92:18;
93:12
strongly 62:14; 67:7;
138:7
structure 78:19
structured 74:7, 17
structuring 111:19
stuff 36:10
subject 40:18; 70:19;
87:23
submitted 6:12; 43:14;
104:9
submitting 115:10
subscribe 87:7; 119:7;
131:22; 140:6
subscriber 18:14;
109:23; 110:23
subscriber's 27:9;
28:13; 53:14, 17; 59:11;
63:9; 70:19
subscribers 7:18; 8:1,
13; 9:21; 10:24; 11:12;
13:18; 49:7, 11; 50:3; 51:1,
8, 17; 103:22; 106:18;
107:13, 16; 108:2, 6, 18,
22; 109:14, 17, 18; 110:2,
7; 111:4; 112:5, 7; 139:24
subscribing 103:18
subscription 87:19
subsidiary 122:10
substance 26:21, 23;
29:4; 56:11
substantial 58:17
substantially 93:12, 18,
20
substituting 143:18
subtracted 54:11
suburban 74:22
sudden 56:3; 98:15
sufficient 77:22; 138:8;
142:19
suggest 19:21; 44:14;
49:1
suggested 33:16; 146:6
suggesting 143:21
suggestion 128:19
suk 117:2
Suke 14:4
summarizing 67:6
sunspot 65:18
superior 106:24

supervised 10:22
supervising 10:19
supplement 80:11,
82:24; 83:6
supplied 113:2
supplies 59:22
Suppose 106:8; 112:24;
113:1
supposed 42:19
Sure 32:3; 38:1; 41:14;
44:14; 60:16; 72:10;
106:7; 112:14; 119:4;
120:1; 121:16; 140:3
surmise 61:24
surmising 61:5, 22
surrounded 53:15
survey 86:15
switch 88:19
switched 88:17
sworn 4:6
Sympathetically 59:7
sympathy 107:4
synchronize 138:1
syndicated 140:13
system 87:22; 117:7;
128:21; 129:14; 139:14
systems 88:5; 116:20;
118:8

T

table 133:24
tag 45:24
talk 55:20; 56:14; 73:10;
105:20, 21, 24; 107:8;
115:4; 134:15
talked 10:17; 106:23;
111:21
talking 35:8, 9; 57:23;
67:23; 73:5; 75:21; 77:17;
106:6; 110:20, 22; 111:17;
139:7; 142:5
talks 127:8
tall 91:2, 9
Tammany 118:13
target 70:21; 78:6; 81:23;
82:1
task 107:5
TDS 116:23; 118:11
technical 61:4, 5, 22;
134:15; 138:14, 20
technique 108:14; 132:5
techniques 9:14; 60:11
Telephone 116:19;
118:7; 119:9; 141:6
Telephonic 116:23
Television 4:5; 20:4;
21:17; 22:16; 62:16;
78:23; 81:6; 83:7; 84:10;
87:7; 92:17; 97:5; 98:17;
100:23; 105:17; 114:14;
118:19; 127:20, 21;
131:10; 137:11, 23; 139:7,
10, 17, 20, 24; 141:17, 21,

22:142:4; 144:10 temporal 47:14, 18 ten 72:23; 73:8 tens 21:23 term 17:19; 18:17; 21:10; 46:24; 47:1; 65:12; 134:15; 138:9 terminology 134:17 terms 16:14, 15; 17:7; 36:6; 41:7; 48:5; 56:6; 59:2; 62:12; 64:21; 73:10; 75:20; 89:8; 93:8; 103:23; 134:16 terrain 94:4 test 62:1; 66:3; 77:20; 135:14, 21 tested 8:8; 112:7 testified 4:6; 103:19; 113:21; 114:18 testify 7:2; 113:17 testifying 124:13 testimony 71:21; 95:22; 115:5, 9, 12; 116:24; 117:9, 15; 118:4, 15, 17; 133:7; 134:3; 146:3, 7 testing 8:9; 99:11 tests 9:9; 10:19, 23; 107:11 Therefore 37:8; 59:14; 108:9; 110:9; 123:24; 128:5 they're 96:1 third 13:19; 82:11; 97:23; 98:2, 6 though 24:9; 45:16; 129:22; 136:5; 144:19 thought 6:8; 14:13; 42:1; 80:6; 86:1 thoughts 125:16 Thousand 19:13; 108:1 thousands 19:15; 21:3, 4, 6, 7, 24 three 6:20; 32:1; 39:11, 13; 122:21; 140:8, 16 three-hole 32:19 three-page 13:8 threshold 67:19; 71:16; 72:2; 78:8, 10; 84:21 throwing 73:13 thus 42:19 times 19:13; 72:23; 73:8; 111:9; 140:11; 143:3 timing 98:11 tiny 45:11 today 4:12; 7:10, 11; 33:7; 77:7; 80:10; 115:5; 130:7; 131:11 together 98:19; 108:11 told 56:20; 60:9; 61:13, 15; 90:2; 110:17; 128:13; 140:23 Tom 4:10 took 36:11; 69:19; 78:1 top 20:1; 32:18, 19; 76:19; 95:6; 102:22; 103:6 topic 118:21 topographic 86:15 tossed 62:22 total 109:23 totally 15:21 touched 144:21 toward 56:1 towards 145:4, 5 tower 38:22; 90:19; 98:13; 101:16; 102:17, 19 track 42:18 tradition 121:23 traditional 37:15; 40:5; 82:2 transcript 34:4; 146:3, 5 translate 58:18 translating 67:10 translators 46:2 transmission 19:9; 61:1; 63:13, 17, 22; 64:24; 66:20; 69:20; 70:10; 130:14; 139:7, 9, 16, 23 transmit 89:9 transmitter 46:21; 94:1 transmitting 65:21; 90:19 treat 24:9 trees 53:15; 55:1, 14; 56:3; 137:15 trial 124:13 trouble 16:14, 16; 17:8; 115:15; 138:3 troubles 18:17; 49:6; 58:18 true 23:20; 24:3, 8, 10; 25:23; 90:12; 119:17; 139:6, 8; 146:6 truth 28:3; 109:12 try 36:6; 62:4; 99:19; 112:9 trying 8:3; 18:19; 32:20; 37:18; 45:6; 48:1, 15; 61:8; 66:22; 67:3; 76:6; 135:9 tumult 114:9 turn 32:17; 56:2; 99:20 turned 79:20; 109:6, 11 turning 127:2 TV 12:11; 22:19; 42:11; 43:17; 52:8; 80:9; 83:2; 88:6, 10; 91:1, 4, 12; 97:8, 13; 100:13; 124:19, 22; 131:22 twenties 123:6 two 34:8; 36:1; 38:17, 19; 40:15; 41:2, 3, 20; 50:8; 55:11; 57:12, 20; 68:4; 118:23; 119:14, 16; 125:15; 131:18; 132:11; 133:16; 134:13 two-minute 33:12 two-story 67:2 type 132:14; 141:7, 12 typical 36:15; 55:9; 57:15; 101:5, 22; 102:16 typically 22:10; 90:24; 91:3, 6, 7	104:10; 106:16; 110:19; 111:19; 124:2; 130:5 users 38:20, 22 uses 36:9 using 9:14; 12:21; 14:10; 16:11, 14, 17; 17:2, 7; 19:8; 20:14; 33:22; 35:19; 36:4; 37:15, 16; 40:5; 42:20; 60:17; 62:21; 64:11, 16; 71:15; 76:22; 86:6, 12, 21; 104:12; 120:11; 142:3; 143:16 usual 21:12; 22:20; 42:15; 64:10 usually 64:21 utilization 129:18 utilized 80:16 utilizes 39:1	viewer's 26:6, 24, 28, 24; 142:15 viewers 105:17, 18; 129:21 viewing 105:3 views 106:23 Virginia 4:23; 11:17; 12:7; 86:14; 121:20; 122:1, 6 virtually 53:12 visited 10:6 voltage 63:12, 21; 73:13	
	U U.S. 126:8; 127:2, 6 UHF 51:15 ultimate 103:7 ultimately 114:11 unacceptable 129:16 undefined 62:22 under 10:13; 72:11; 91:15; 93:11; 120:18; 128:20; 146:4 understood 106:7; 132:19 unfair 123:18 unk 73:11 Unk'd 11:1, 12; 51:9, 10; 84:12, 13; 85:2; 100:23; 126:6; 127:8, 16 units 73:5 universal 114:8 universe 110:21; 113:6 Unix 36:10 unknown 41:1; 108:20; 113:14 unlikely 72:11; 108:10, 12 unlimited 55:4 unplug 141:20 unserved 106:18 up 18:9; 32:11; 59:23; 60:3; 66:2, 6, 7, 7, 20; 69:21; 77:13, 23; 78:11; 89:5, 8; 98:13; 108:10, 23; 109:9, 14; 126:9, 13, 16; 127:2, 11, 15, 22; 130:2; 131:3; 141:17 upon 94:16; 95:15; 96:10; 127:12; 128:19; 130:11, 18; 134:21, 23; 135:1 upper 33:4 urban 53:19; 90:13, 20; 94:9, 10; 102:23 usability 23:4 usable 12:4; 17:9, 16, 21 use 11:20; 14:17; 15:7; 20:6; 33:7; 35:3, 6, 7, 23; 36:3; 39:1; 46:18; 47:1; 49:5; 51:13; 55:23; 64:8; 71:23; 79:13, 17, 22, 23; 80:11, 22, 24; 81:5, 18; 82:6, 24; 83:5; 84:9, 24; 85:4, 9, 10, 18; 86:24; 92:23; 104:4, 8, 21; 105:14; 106:13, 20; 107:15; 112:2; 116:14; 117:10; 118:10; 126:21; 127:20; 134:15 used 35:21, 22; 56:10; 59:6, 9; 62:12; 79:19; 80:2; 82:10, 12; 86:23; 88:16; 96:20; 97:4; 98:19;	V vague 5:7, 8 vagueness 14:2 valid 120:5 validate 99:11 validity 108:13 Valley 65:10, 14 value 40:14; 67:19, 23; 70:22; 71:16; 72:2; 78:6, 8, 10 values 18:1 variabilities 58:16; 59:16; 67:10, 11; 68:19; 82:6 variability 58:10, 17; 65:13, 15; 74:21; 77:18, 18; 105:1, 5, 5; 120:23; 138:5 variables 104:24 variety 94:17; 95:9 vary 28:19 vegetation 39:2; 55:7, 10; 94:16 Velturo 25:12 vernacular 35:23 version 6:6; 41:23; 80:3, 5; 89:11, 13 versus 117:1, 19 VHF 16:21; 17:4, 12; 18:14; 24:18; 51:14, 14; 56:9; 68:4; 70:22; 73:15; 91:23; 92:10, 14; 100:22; 101:6, 22; 125:23; 126:5, 8; 127:18 vicinity 57:12; 78:7 view 44:19; 55:24; 60:21; 67:6; 72:6; 75:8; 76:24; 78:2; 111:24; 120:2; 139:1 viewable 5:17; 12:4; 130:16 viewer 24:14; 26:6; 28:6, 21, 22; 76:1; 119:7, 8, 19; 131:20; 134:21, 24; 136:24; 140:5; 142:3, 8; 143:15	W W/CBS 4:5 wait 85:22 wants 84:4; 129:8 Washington 4:12; 12:12; 14:12, 15; 15:22; 42:7, 10; 43:9, 14; 44:4, 20; 45:5; 74:22; 84:17; 86:6, 11; 89:17; 90:8, 14, 18; 97:11 watch 128:21, 23; 140:10, 11, 12, 20 wave 137:19, 21 wavelength 21:20 wavelengths 21:16 waves 40:3; 94:17 way 6:19; 16:3, 19; 22:3, 7; 24:5; 31:22; 32:5, 8, 11, 14, 16; 34:5; 37:7; 39:21; 41:9; 43:4; 45:18; 60:21; 70:14; 73:5, 14; 74:6; 84:15; 89:20; 98:13; 100:7; 104:6; 106:24; 112:9; 118:22; 123:9; 131:4; 133:24; 143:5; 145:9, 16 ways 66:22; 140:8 weak 129:22; 134:16; 136:15 web 38:11, 13 weeks 6:20 weren't 102:3 WFOR-TV 54:2 What's 11:24; 45:12; 56:14; 93:10 Whereupon 83:12; 145:21 wherever 132:24 whirlpool 31:13 white 32:1; 33:18, 22; 45:11, 12, 21; 89:13 whole 127:1 wholly 122:9 whose 54:23; 139:14, 15, 17; 144:13 width 137:11 willing 26:14; 101:17; 142:5, 8 willingness 133:17 Wilmer 4:11 window 66:19

wires 55:1
wishes 116:14; 119:7
with/without 146:5
within 5:11, 12; 20:16;
34:8; 44:4; 46:6; 49:11;
62:18, 19; 65:20; 68:20;
82:1, 5; 89:17; 92:17;
93:13; 102:9, 11; 110:20,
22; 112:4; 136:14; 138:5;
139:13; 144:15
without 23:3, 15, 17;
33:3; 43:11; 47:12; 75:23,
24; 138:4; 139:21; 140:18,
21
witness 4:3; 11:5; 16:4;
17:14; 23:18, 19; 25:10;
32:15; 47:11, 19, 23; 48:2;
52:13; 56:20; 57:1; 90:2;
92:20; 93:5; 100:19, 19,
20, 21; 102:5, 10; 108:8,
20; 110:9; 116:18, 21;
123:12; 132:11; 135:5;
136:4, 4
witness's 111:6
wonder 27:19; 30:3; 50:6
word 18:9; 46:18; 49:5;
58:6; 61:10; 86:4; 91:6, 7;
92:24; 99:10, 19, 19;
106:20; 107:18, 21; 112:3;
118:10; 137:3, 9
words 7:3; 17:6; 39:7;
42:15; 47:12; 48:4; 62:21;
84:14; 93:24; 109:20;
110:1, 19; 126:3
work 9:13; 10:7; 11:7;
36:11; 41:16; 42:12;
43:15; 52:1, 3, 7; 62:5;
124:5, 9, 16, 19; 125:5
worked 37:10
working 10:13; 123:8
works 31:18, 19; 87:2
world 21:19; 59:1; 79:10,
11; 80:9; 91:8; 101:21;
113:9, 12
worse-than-average
103:23
write 39:17; 116:8
written 115:10
wrote 36:9; 41:2
WTTG 45:14, 15; 46:3,
21; 47:9; 57:18; 85:11, 13
WUSA 12:17

Z

zero 123:5

Y

year 65:13
Years 9:13; 10:3; 20:13;
21:2; 37:11; 52:5, 8; 65:22;
67:13; 69:5; 89:1; 99:1, 7;
114:4; 115:12; 118:11
yon 55:16; 74:12
yonder 56:12; 77:14, 23

Lawyer's Notes

SUGGESTED CORRECTIONS

RE: CBS, INC., ET AL. vs. PRIMETIME 24 JOINT VENTURE
WITNESS: RICHARD L. BIBY, Vol. I

The above-named witness wishes to make the following changes to the testimony as originally given:

PAGE	LINE	SHOULD READ	REASON
21	19	world, one collects discrete samples,	clarity
21		one - to two hundred,	
21	22	consisting of this (set) of one - to two	clarity
		hundred individual readings.	
23	5	A: I understand your interpretation	wrong word - interruption
46	21	point-to-point predictions, from the WTTG	intent - parallel dropping
		transmitter to	I used "predictions"
55	12	attenuation of the signal strength, on	ATTENUATION, <u>NOT</u>
		overall loss	COORDINATION
59	19 & 24	} what is meaning of asterisk ??	
70	1 & 4		

C E R T I F I C A T E

I, Richard L. Biby, do hereby certify that I have read the foregoing transcript of my testimony, and further certify under the pains and penalties of perjury that said transcript (with/without) suggested corrections is a true and accurate record of said testimony.

Dated at arlington, Virginia, this 2nd day of July, 1998.

Richard L. Biby